



Stage 1 Conservation Management Plan

SOUTH HEAD SYDNEY HARBOUR NATIONAL PARK

Volume 1 – Assessment of Significance

Report No. 07046

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Department of **Environment & Climate Change** NSW



SOUTH HEAD SYDNEY HARBOUR NATIONAL PARK

STAGE 1 CONSERVATION MANAGEMENT PLAN
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1.0 INTRODUCTION & EXECUTIVE SUMMARY

1.1 Introduction

The NSW Government Architect's Office was engaged in August 2006 by the NSW Department of Environment and Conservation (Parks and Wildlife Division) to prepare this report as Stage 1 of a Conservation Management Plan (CMP) for the Sydney Harbour National Park (SHNP) at South Head. The study area includes precincts commonly referred to as Inner South Head, Lady Bay Beach, Green Point Reserve and Gap Bluff (see Figure 1.2).

The main purpose of the CMP is to identify significance and provide guidelines for the conservation, use, interpretation and management of the South Head to ensure that the heritage values of the place are maintained and, where appropriate, enhanced. The CMP will guide future management of the site in consideration of its heritage resources by:

- Identifying the site's cultural heritage resources;
- Assessing the value of those resources;
- Developing policies for conservation, interpretation, management and future use of the site;
- Providing an understanding of the conservation management processes for the site's stakeholders.

Stage 1 of the CMP sets out to identify the site's cultural heritage resources and to understand the site through analysis of its historical development and physical characteristics and to assess the values of the resources. Stage 2 of the CMP will address the site's constraints and opportunities and provide policies for appropriate management of the cultural heritage resources now, and into the future.

Conservation policies and management recommendations are also to be completed in the Inventory Sheets in Volume 2 as part of Stage 2 of the CMP and for the management of Aboriginal heritage as outlined in Volume 3 of this Stage 1 CMP.

1.2 Location and Study Area

South Head is at the tip of the long southern peninsula, which separates Sydney Harbour from the South Pacific Ocean. The peninsula features high cliffs as a dramatic rocky barrier to the ocean on its east falling to undulating ground comprising of small headlands and beaches facing into the harbour. South Head forms the southern edge of the harbour entrance. The majority of the area has been a National Park since 1977, with Gap Bluff being added in 1982. The site is a popular recreational area for Sydneysiders and visitors and also has a relatively rich natural heritage, much of it through the revegetation of the area as a National Park.

The Sydney Harbour National Park at South Head contains at least 11 Aboriginal sites. Its relatively undeveloped character is important to the overall cultural heritage values of the Sydney Harbour and particularly its entrance. The study area has some natural heritage values including being home to some rare flora and endangered fauna species. The previous post 1788 uses of the Sydney Harbour National Park at South Head for maritime safety and defence are reflected in the cultural landscape described in this report including precincts, buildings, structures and historical archaeology remains from the nineteenth and twentieth centuries.

For the purposes of this CMP, the term ‘the study area’ refers to part of north end of the South Head peninsula owned and managed by the NSW Department of Conservation and Climate Change (DECC) as part of the Sydney Harbour National Park (which includes other sites around Sydney Harbour).

The study area is divided into five main precincts for the purposes of this report (see Figures 1.2 and 1.3):

Inner South Head [1.0]

Inner South Head is the most northerly end of the peninsula. The term ‘Inner South Head’ is used to distinguish the tip of the headland from the bluff adjacent to the Macquarie Lightstation further to the South. This precinct is characterised by jutting rock platforms with a relatively level area on top. The plateau has areas of medium height native bushland contrasted with low grassland surrounding rock platforms; while the stony cliffs are dotted with heathland including some weed species. There are at least 6 identified Aboriginal sites in the Inner South Head Precinct.

The headland has a range of navigational and defensive buildings and structures. The most prominent, the Hornby Light [1A.3] built in 1858, is outside the study area. However with the lightkeeper's cottages [1A.1 & 1A.2], built 1858-60, the Light is part of the important historic Hornby Lightstation precinct [1A.0].

Defensive structures at Inner South Head include the Hornby Battery [1.3] partially quarried into the bedrock from 1876 and consisting of a number of gun emplacements, underground facilities such as an Engine Room [1.3B] and a Shell Store [1.3A] and connecting passageways. Other structures and archaeological remains date from 1894 (gun emplacement [1.4]); the 1890s (Searchlight Emplacement No 2 [1.6]); and from WWII (Searchlight Shelter [1.5]).

Lady Bay [2.0]

The Lady Bay Precinct forms a narrow strip of land sandwiched between the Harbour and HMAS Watson, allowing a walking track between Camp Cove and Inner South Head and access to Lady Bay Beach. It was previously used for coastal defence and artillery training in combination with adjacent land. Largely bare of shrubs during its defence use, the area is now revegetated with native bushland. There are at least 3 Aboriginal sites scattered in this narrow precinct.

Dotted through the Precinct are remnant defensive archaeological elements and structures from the late nineteenth and twentieth centuries including the concrete Searchlight Emplacement No. 3 from the 1890s [2.3]. Lady Bay Beach is Sydney's first designated nudist beach.

Camp Cove [3.0]

Immediately to the north of Camp Cove Beach this National Park area is dominated by introduced vegetation including mature Coral trees. There are also extensive plantings of native and other introduced plant species. Through these plantings winds the new access path and steps before it meets the c1880s cobblestone road [1.4]. This is the only remaining exposed section of the original road that connected the Water Police Station at Camp Cove with the Hornby Lightstation. Beside the cobblestone road are stone retaining and rifle walls

Beyond the cobblestone road the area is more exposed and features weathered gun emplacement excavated into the bedrock [3.3]. This emplacement is thought to date from the late nineteenth century. Currently a 9-inch Mark V gun on a gun carriage [3.3A] is placed in the pit, relocated from elsewhere on South Head.

Immediately above the Camp Cove Beach are two buildings with associated gardens within the National Park boundary. These are the 'Constables' Cottage built c.1895–1903 [3.1], and 33 Cliff Street built in the late 1950s [3.2].

There are other heritage elements in this area, which are described in this report, although they are mostly outside of the National Park boundary. These are the Camp Cove slipway carved into the rock platform and which may date from the 1850s and associated artefacts [3.5]; the 1840s Water Police Landing Steps [3.6]; and the 1931 Tide Gauge beside the remains of a timber jetty.

Gap Bluff [4.0]

The Gap Bluff area makes up the south half of the National Park at South Head abutting the southern boundary of HMAS Watson. The area was relatively underdeveloped until the early twentieth century. From that time, it (along with the area now occupied by HMAS Watson) was almost exclusively used by the Army first for the Artillery Practice Battery and its Workshop from 1895 onwards, the School of Artillery/Gunnery from 1912, followed by the Radar School and the Army's National Service depot from the 1950s.

Gap Bluff has been further subdivided into Lower Gap Bluff [4A.0] and Upper Gap Bluff [4B.0] to reflect the different character of these areas.

Upper Gap Bluff is now heavily vegetated with mainly native scrub and some weed infestation, although at the height of its use from the 1950s to 1980s it accommodated a dense array of masonry and timber structures interlinked by numerous roads and paths and set in a grassed landscape (see Figure 3.43). The current National Park lookouts [4B.1] are the only areas that retain this open setting with low native heath and spectacular maritime views. There are archaeological remains associated with defence uses throughout Upper Gap Bluff.

A meandering low escarpment separates Lower Gap Bluff which has a more tamed historical landscape associated with the remaining defence buildings and archaeological sites. These include the 1936 Officer's Mess and Garden [4A.1]; the 1895 Former Workshop (now a cottage) [4A.3]; the 1938 Armoury (now function centre) [4A.2]; and the site of 1912 Artillery Barracks (toilet block still standing and operational) [4A.4]. Historical landscape features including the avenue of Norfolk Island Pines and the gateposts.

Green Point [5.0]

Green Point is a low rounded headland into Sydney Harbour. The grassy parkland is circled by a shelved rocky reef. The most prominent surviving feature at Green Point is the former c.1900 Officers Quarters [5.1] sited adjacent to the rock outcrop at the apex of the hill. Elsewhere there is a wealth of archaeological remains of defence uses of the site in the nineteenth and twentieth centuries including the 1870s underground Submarine Miners Firing Station [5.4]; and the foundations of the World War II Anti-Submarine and Torpedo Boom Net / Searchlight No. 4 [5.7].

Green Point also contains a 1850s stone navigational obelisk [5.3], one of four around the Harbour.

The Arthur Phillip Monument [5.2] symbolically links Green Point to the first European settlement of Sydney in 1788 with Phillip's first landing within the Harbour believed to be at Camp Cove.

1.3 Summary Statement of Significance

The following is the summary statement of heritage significance for the SHNP at South Head, which arises out the analysis of documentary and physical evidence in this report:

South Head is considered to be of National heritage significance as one of the suite of strategic harbour lands within SHNP, important in the pattern of Australia's maritime and defence history including National Park land at Middle Head, Georges Head, Georges Heights and North Head. The remains of the Submariner's Firing Station, Searchlight Emplacements, Observation Post and associated infrastructure throughout South Head are important at a National level as part of the first Submarine Mining installation in Australia (1878–1903). Other evidence of this installation remains at Chowder Bay, Georges Heights, Middle Head and Inner South Head (Lady Bay Precinct).

The NPWS land at Green Point has cultural significance to both Aboriginal and non- Aboriginal Australians for its symbolic connection with the first landfall of Governor Arthur Phillip in 1788.

The Aboriginal sites at South Head are significant at a State level because they provide a tangible link to the Aboriginal occupation of the land including evidence of pre-contact subsistence and religious activities.¹ South Head is of State significance historically as a place of strategic importance for navigation as demonstrated within SHNP at South Head by the second Water Police station site at Camp Cove from 1840, the Green Point Navigation Obelisk from 1858, and the Hornby Lightstation from 1858.

The wrecking of the Dunbar in 1857 with the loss of 122 lives was a key historical event associated with these later navigational improvements. The Hornby Lightstation built in response to this tragedy and comprising the Hornby Light (1858), Head Lightkeeper's Cottage (1860 & 1878), Assistant Lightkeepers' Cottages (1858 & 1878) and surrounding cultural and archaeological landscape, is considered to be of outstanding significance to the State of NSW. Hornby is the only NSW Lightstation to retain the whole navigational site collection of light and adjacent cottages intact to the late nineteenth century arrangement. The Lightstation has associations with its principal designers, the NSW Government Architects Alexander Dawson (GA 1856-1862) and James Barnet (GA 1862-1890); Barnet was also responsible for many of the fortifications structures at South Head in the late nineteenth century.

The Camp Cove Water Police archaeological remnants and Green Point Navigation Obelisk also have technical heritage significance as part of developments in NSW maritime safety.

The former defence installations throughout South Head are of State heritage significance for their historical, associational, aesthetic, technical significance and research potential. The nineteenth century emplacements demonstrate Australia's reaction to events in Europe. The South Head Defence installations are associated with Barnet, along with Sir William Jervois (1821–1897) and Sir P. H. Scratchley (1835–1885). The remains of the Submariner's Firing Station, Searchlight Emplacements, Observation Post and associated infrastructure throughout South Head - part of the first Submarine Mining installation in Australia (1878–1903) which also includes evidence at Chowder Bay, Georges Heights, Middle Head - is likely to be rare in NSW and possibly Australia. The WWII and post WWII phases of Defence use of South Head also have great potential for further historical, technical and archaeological research.

The 1870s Hornby Battery (partly within HMAS Watson land) and other gun emplacements within NPWS land are good representative examples of nineteenth century fortifications quarried into the natural sandstone. The Hornby Battery contains evidence of four different phases of artillery technology in one fortification site. It is a good example of a quarried battery with extensive connecting passageways and underground magazines and stores. The addition of the underground Engine Room in the 1890s and remnants of the associated electrical and communication installations make the battery of particular technological importance. Evidence of the changes to the battery to take larger ordinance in the 1890s is also of technological importance.

¹ Comber Consultants Pty Ltd, Aboriginal Archaeological Cultural Heritage Assessment South Head, Sydney Harbour National Park, 2007.

South Head also has significance at a local level for its ability to demonstrate the geomorphology of Sydney Harbour and to support native flora and fauna, including some endangered species. It also has significance at a local level for its historical, associational, aesthetic and representative values.

Visitors and residents value the local recreational cultural landscape of South Head including the important views and vistas. A formal social values assessment was not possible within the scope of this Conservation Management Plan however Section 5.2.4 considers the likely special communities who would value South Head including the Sydney Aboriginal community, professional and amateur natural and cultural historians, nude bathers, defence personnel and their families and descendants.

Additional information on heritage significance can be found in Section 4 and 5 (Volume 1) and in the Inventory Sheets (Volume 2) of this report. Information on Aboriginal heritage is contained in Volume 3 – Aboriginal Archaeological Cultural Heritage Assessment.

1.4 Recommendations arising from Stage 1 of the CMP

The following recommendations arise out of this study. These recommendations should be considered in Stage 2 of this report together with the overall policies to conserve the significance of SHNP at South Head.

1. Consideration should be given to a formal social values assessment of the SHNP at South Head prior to conservation policies and management recommendations being completed in Stage 2 of the this CMP.
2. The Aboriginal heritage values of the SHNP at South Head need further assessment including consultation with Aboriginal community groups.
3. The Aboriginal contact/post-contact history of the South Head peninsula, including Watsons Bay/Camp Cove, requires further research. It is recommended that detailed primary document research be carried out at the State Records and State Library of NSW, to explore the relationships between Aboriginal people and Europeans in the late eighteen and nineteenth centuries, integrating first-person accounts with official records of the area.
4. The historical relationships between the SHNP at South Head and adjacent residential areas needs further research, particularly with regard to recreational uses.
5. Inventory Sheets should be prepared for each precinct within South Head, as these form a useful summary of the natural, Aboriginal and cultural landscape values (including more in depth assessments of views and mature plantings) for each

- precinct. Volume 2 of this report includes Inventory Sheets for Lady Bay [2.0] and Gap Bluff [4.0] only.
6. Significant views and vistas which require management should be identified on precinct plans as part of Stage 2 of this CMP. This may include views that need to be reinstated by removal of vegetation.
 7. While the whole of SHNP at South Head is considered to have historical archaeological potential, a more comprehensive assessment of the historical archaeological evidence through research and fieldwork will enable more exacting archaeological conservation management policies to be given in Stage 2 of this CMP. Many of the archaeological elements need to be understood as part of a larger system before their significance can be properly assessed.
 8. South Head has potential for further research and interpretation on the many uses of South Head that will enrich the cultural landscape experience including the stories of the Water Police, Lightkeepers and Defence personnel who have lived and worked at the site and their families.
 9. The significance of elements in the DECC's Historic Heritage Information Management System (HHIMS) should be updated in accordance with this report.



Figure 1.1. Current street plan, showing the location of South Head north east of Sydney city at the entrance of Sydney Harbour between the harbour itself on the west (left) and the South Pacific Ocean on the east (right) (Source: www.street-directory.com.au)

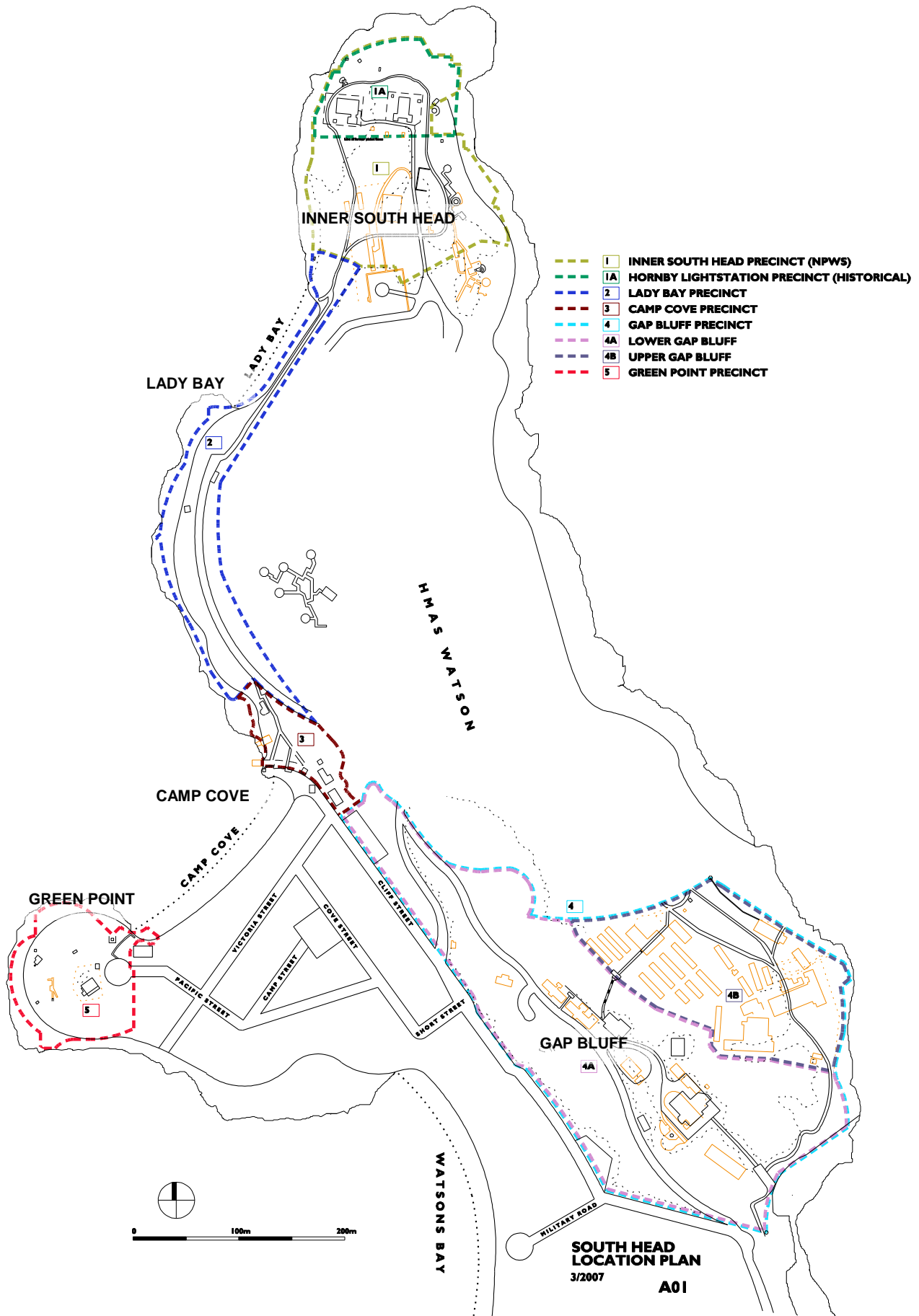


Figure 1.2. Location of Precincts referred to in this CMP.



Figure 1.3. Aerial photograph of the north end of South Head showing the boundary of the two parts of the Sydney Harbour National Park at South Head, which comprise the study area (edged in red). The main precincts used in this CMP are identified. Source: DECC.

1.5 Ownership and Management

The study area is owned and managed by the NSW Department of Conservation and Climate Change (DECC) as a part of Sydney Harbour National Park. Sydney Harbour National Park covers 393 hectares of headlands, beaches and islands around Sydney Harbour. The park covers four major headlands on the northern side of the harbour (North Head, Dobroyd Head, Middle/Georges Head and Bradleys Head), and two major headlands on the southern side of the harbour (South Head and Nielsen Park), as well as a number of smaller, separate areas of land on both sides of the harbour. It also includes five islands within the harbour: Clark Island, Shark Island, Rodd Island, Goat Island and Fort Denison.

Sydney Harbour National Park was established in 1975 in order to protect the scenic gateway to the city and the remnant vegetation of Sydney Harbour. In 1979, following negotiations with the Commonwealth Government, land previously used for defence purposes, including South Head, were added to the park.

The park is managed in accordance with the Sydney Harbour National Park Plan of Management dated 1998, amended 2003 and adopted in accordance with the provisions of Section 75 of the *National Parks and Wildlife Act 1974*. The plan of management states that the park is important as an outstanding recreational resource for residents of Sydney and visitors to the city. It is the most readily accessible national park in NSW, well served by public transport, and attracts around 2 million visitors each year. The high visibility of the park from the harbour and the panoramic views offered from its lookouts and walking tracks makes Sydney Harbour National Park an important national and international tourist destination. The cultural and natural values of the park, and its location within a major population centre in close proximity to many schools and tertiary institutions, provide significant opportunities for promotion, education and research.

1.6 Heritage Listings

Note that the implications of these heritage listings will be discussed in Stage 2 of the CMP.

1.6.1 Statutory Heritage Listings

Environment Protection and Biodiversity Conservation Act 1999

No sites within the study area are listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The adjacent land comprising HMAS

Watson on Inner South Head and the Marine Biological Station at Green Point are included on the Commonwealth Heritage List under the EPBC Act.

NSW Heritage Act 1977

State Heritage Register

South Head and the features within the study area not currently included on the State Heritage Register (SHR) under the *NSW Heritage Act 1977* (the Heritage Act).

Department of Environment and Climate Change (DECC), s170 Register

Most of the heritage elements within the study area at South Head are listed in the Department of Environment and Climate Change, s170 Register. These are:

| s170 # | Element Name |
|---------------|--|
| 3906971 | Unidentified Structure; Possibly Radar; Gap Bluff |
| 3906972 | Unidentified Structure; Gap Bluff |
| 3906973 | Unidentified Structure; Gap Bluff |
| 3906974 | Unidentified Structure; Gap Bluff |
| 3906975 | Unidentified Structure; Gap Bluff |
| 3906976 | Unidentified Structure; Gap Bluff |
| 3906977 | Unidentified Structure; Gap Bluff |
| 3906978 | Unidentified Structure; Gap Bluff |
| 3906980 | Inflammables Building; Gap Bluff |
| 3906982 | Unidentified Structure; Gap Bluff |
| 3906983 | Unidentified Structure; Possibly Dormitory Area; Gap Bluff |
| 3906984 | Unidentified Structure; Possibly Dormitory Area; Gap Bluff |
| 3906985 | Unidentified Structure; Possibly Dormitory Area; Gap Bluff |
| 3906986 | Unidentified Structure; Gap Bluff |
| 3906987 | Unidentified Structure; Gap Bluff |
| 3906991 | Engine Block; Gap Bluff |
| 3906992 | Unidentified Structure; Gap Bluff |
| 3906993 | Unidentified Structure; Gap Bluff |
| 3906994 | Unidentified Structure; Gap Bluff |
| 3906995 | Unidentified Structure; Gap Bluff |
| 3906996 | Unidentified Structure; Gap Bluff |
| 3906997 | Unidentified Structure; Plinth; Gap Bluff |
| 3906998 | Unidentified Structure; Hornby |
| 3907000 | Pecking; Hornby |
| 3907001 | Wall; Hornby. |
| 3907002 | Pecking; Hornby |
| 3907003 | Post Hole; Hornby |
| 3907004 | Wall; Hornby |
| 3907005 | Unidentified Structural Remain; Hornby |
| 3907009 | Camp Cove Residence -33 Cliff Street |
| 3907019 | Unidentified Structural Remains; Hornby |
| 3907020 | Toilets; Hornby. |

| s170 # | Element Name |
|---------------|--|
| 3907021 | Semi - Detached Cottages |
| 3907022 | Hornby Battery Gun Emplacement |
| 3907024 | Hornby Observation Post |
| 3907025 | Unidentified Structural Remain; Hornby |
| 3907026 | Gun Emplacement; Hornby. |
| 3907027 | Battery Control Post |
| 3907028 | Remains Of 1870S Gun Emplacement |
| 3907033 | Car Park; Hornby |
| 3907034 | Unidentified Structure; Hornby |
| 3907038 | Fortification Wall; Hornby. |
| 3907039 | Observation Post |
| 3907324 | Constables Cottage-32 Cliff Street Inner South Head Road from HMAS Watson to Lightkeepers Cottages |
| 3907330 | Cottages |
| 3907331 | Cobblestone Road From Cliff Street |

(The Green Point Obelisk is included in the Marine Ministerial Holding Corporation S170 Register).

Archaeology

Any archaeological relics² within the study area have protection under Section 140 of the NSW Heritage Act.

NSW National Parks and Wildlife Act, 1974

All natural and cultural (including Aboriginal) heritage within the study area is afforded conservation under the objectives of the *National Parks and Wildlife Act 1974*.

1.6.2 NSW Environmental Planning and Assessment Act, 1979

Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

The Green Point Obelisk is included as a heritage item in Schedule 4 of the Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005. The Green Point Obelisk is owned and managed by the NSW Maritime Authority.

Woollahra Local Environmental Plan (LEP) 1998

A number of sites with the study area are included in Schedule 3 of the Woollahra Local Environmental Plan 1995 (LEP) as heritage items of local significance. The sites include:

- Constable's Cottage group, comprising Police Station, 32 Cliff Street; 68-pounder MI and rifle posts and surrounds; sandstone defensive wall and roadway

² Under the *NSW Heritage Act, 1977* relic means any deposit, object or material evidence:

(a) which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and (b) which is 50 or more years old

- Artillery/Gunnery School group, comprising: former officers' mess (part of Conference Centre); former battery workshop (cottage); former store (part of Conference Centre); former School of Artillery/Gunnery latrine (toilets); practice battery at seaward cliffs
- Hornby Light group comprising Hornby Lighthouse; two cottages; gun emplacements and fortifications;
- Green Point Battery

1.6.3 Non-statutory Heritage Listings

National Trust of Australia (NSW)

A number of sites within the study area are classified by the National Trust of Australia (NSW). The relevant National Trust listings are:

- Sydney Harbour Landscape Conservation Area
- Watson's Bay Urban Conservation Area (Green Point included)
- Artillery Barracks Group
- Guardhouse Former: Building 26
- Former Barracks: Building 33
- Former Parade Ground
- Constable's Cottage formerly Pilot Station
- Hornby Light & Cottages Group

Register of the National Estate

The Sydney Harbour National Park (1980 Boundary) and the Sydney Harbour Entrance, which includes the South Head peninsula, are listed on the Register of the National Estate. A number of items within the study area are also classified by the Register of the National Estate, including the Hornby Lightkeepers' Cottages.

1.7 Methodology

The report conforms to the current guidelines of the NSW Heritage Council and is guided by the NSW Department of Environment and Climate Change (Parks and Wildlife Division) heritage management guidelines. It is consistent with the principles and guidelines of the *1999 Burra Charter (the Australia ICOMOS Charter for Places of Cultural Significance)* and has been undertaken and presented in accordance with the methodology established by James Semple Kerr in *The Conservation Plan: A Guide to the Preparation of Conservation Plans For Places of European Cultural Significance* (Kerr 2004) and the *NSW Heritage Manual*.

The Burra Charter provides definitions for terms used in heritage conservation and proposes conservation processes and principles for the conservation of an item. The NSW Heritage Manual explains and promotes the standardisation of heritage investigation, assessment and management practices in NSW. The key methodology of both documents is to identify the nature of any heritage significance as a basis for making decisions that will affect the future of the place. *The Conservation Plan* provides guidance on substance, structure and methodology for the writing of effective, site-specific conservation plans.

This Volume 1 of the Stage 1 CMP provides an analysis of South Head, based on documentary and physical evidence. This analysis includes a historical summary, developing an understanding of the history of the site and place, together with a descriptive analysis of the site and its elements. Information on the natural heritage of the site was provided by the DECC. A comparative analysis is provided with similar cultural heritage places across a range of historical themes identified for South Head. Significance is assessed in accordance with the NSW Heritage Act heritage assessment criteria and a level of significance given to the site overall.

Volume 2 of this Stage 1 CMP includes further history, description and analysis of key precincts and elements within the site including identification of archaeological elements from field survey. Inventory Sheets are prepared for selected items and the significance, and level of significance, of these items is assessed.

The Aboriginal Heritage sub-consultant indicated that it was necessary to prepare a standalone Aboriginal heritage assessment, provided separately to DECC and the Aboriginal community (Volume 3 of this Stage 1 CMP). However reference has been made in this Volume 1 to the number of Aboriginal sites in each precinct and the heritage significance of the site based on the findings of Volume 3 of this Stage 1 CMP.

Due to the size and complexity of the site, the project team undertook its fieldwork during a series of site inspections in October 2006 and in early 2007. Reference was made to plans and documents provided by DECC. Where evident, early fabric and layouts were identified and noted as well as modifications associated with the evolution of the site. Often, the extent of original fabric, if it was concealed beneath later finishes, was not easily

decipherable. Annotated plans and notes gathered from fieldwork have not been included in this CMP but will be put on file in the Department of Commerce record system.

1.8 Documentary and Photographic Sources

The historical information in this report was drawn from secondary sources provided by the DECC and included previous reports, historical maps, plans, drawings and photographs. A list of references is included in the Appendix.

1.9 Limitations

- No oral histories or community workshops to determine social values were undertaken.
- Measured drawings were not undertaken. Site plans used in this report were from drawings provided by DECC.
- Moveable heritage items have not been identified and assessed in this CMP.
- Site inspections were undertaken visually with no opening up of fabric. Where possible rooms, internal spaces and rear yard were inspected and photographed. The building underfloor areas were viewed through the existing floor hatches but whole underfloor areas were not inspected. Roof spaces were not entered but were photographed from the manholes.

1.10 Terminology and Definitions

1.10.1 Heritage Element Identification and Numbering System

The numbers in square brackets are the inventory numbers listed in Volume 2 to this Stage 1 CMP – the Heritage Inventory. The elements which have individual Inventory Sheets have the letters 'IS' in front of the number. The elements which do not have Inventory Sheets are described in more detail in the Historical Archaeological Inventory and a GPS position is given. Many of the elements also have a brief description in this volume of the CMP.

[#] means inventory heritage item number in this CMP (no inventory sheet)

[IS #] means inventory heritage item number with an Inventory Sheet in this CMP

The heritage element types have been classified as follows:

Precincts – the precinct boundaries are based on a combination of historical precincts, geographical precincts and DECC management processes. The precincts are listed in the introduction and in Figure 1.2. Cultural landscape issues are

discussed under the precinct headings including views and vistas and significant plantings.

Buildings and their settings – these are buildings or groups of buildings (eg Constables Cottage and Garage). The historical landscape areas associated with the built elements are included with the built element (eg: former fenced boundary associated with the Head Lightkeeper’s Cottage, Officer’s Mess and associated formal gardens)

Structures – these are most of the defensive fortification works or batteries. Often the battery will be made up of a suite of structures (eg Hornby battery consists of a number of gun emplacements and underground structures such as the engine room – all connected by passageways). The Obelisk and the Arthur Phillip Memorial at Green Point are also considered as a structures.

Historical archaeology – these are smaller archaeological structures or the evidence of larger structures in the landscape (eg pit with concrete cover [2.10]). These elements are usually part of a larger system, however further research and analysis is required.

1.10.2 Abbreviations

DECC - the NSW Department of Environment and Climate Change (formerly the Department of Environment and Conservation)

NPWS - the NSW National Parks and Wildlife Service, a division of the DECC.

SHNP – Sydney Harbour National Park

South Head – should be assumed to mean SHNP at South Head unless otherwise indicated by the written context.

1.10.3 Definitions

For the purposes of this CMP:

Local refers to the area encompassed by Woollahra Municipal Council; and

State refers to NSW

Fabric means all the physical material of the place.

Conservation means all the processes of looking after a place so as to retain its cultural significance. It includes maintenance and may according to circumstance include preservation, restoration and adaptation and will be commonly a combination of more than one of these.

Maintenance means the continuous protective care of the fabric, contents and setting of a place, and is distinguished from repair. Repair involves restoration or reconstruction and should be retreated accordingly.

Preservation means maintaining the fabric of a place in its existing state and retarding deterioration.

Restoration means returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.

Reconstruction means returning a place as nearly as possible to a known earlier state and is distinguished by the introduction of materials (new or old) into the fabric. This is not to be confused with either re-creation or conjectural reconstruction, which are outside the scope of the charter.

Adaptation means modifying a place to suit proposed compatible uses.

Compatible use means a use involving no change to the culturally significant fabric, changes, which are substantially reversible, or changes requiring minimal impact.

1.11 Acknowledgements

The authors would like to thank the staff at DECC, in particular Robert Newton, David Costello, Catherine Snelgrove, and Leah Heaney. Heritage consultant to the DECC, Paul Davies, made available a number of photographs and other information about the site.

1.12 Authorship

This CMP was authored by the Heritage Group at the Government Architect's Office (GAO), NSW Department of Commerce, Level 19, McKell Building, 2–24 Rawson Place, Sydney, NSW 2000. The history was compiled from secondary sources by Emma Dortins of Sue Rosen and Associates, Heritage Assessment and History (HAAH). The Aboriginal Heritage Assessment was undertaken by Jillian Comber, Archaeologist/Heritage Consultant and Mediator/Arbitrator.

Within GAO, historical archaeology was prepared by Caitlin Allen Archaeologist. Landscape expertise was provided by Saneia Ahmed, Landscape Architect. Architectural expertise was provided by Ed Beebe, Heritage Architect, and Mary Knaggs, Senior Heritage Architect. The CMP was compiled by Ed Beebe and Laila Ellmoos, and reviewed by Mary Knaggs.

Information on the vegetation and fauna of the study area was provided by Robert Newton of the DECC. All photographs and site / precinct plans are by the GAO Heritage Group unless otherwise stated.

2.0 DOCUMENTARY EVIDENCE – UNDERSTANDING THE HISTORY

2.1 Summary

The Inner South Head peninsula is at the end of a long promontory, which forms a natural breakwater, sheltering the waters of Port Jackson from the South Pacific Ocean. It is named Inner South Head to distinguish it from the bluff adjacent to the Signal Station further south (known as Outer South Head, not in the study area). On the seaward side, high cliffs almost drop straight into deep ocean, while the western side meets the water in sheltered, shallow bays and beaches. The peninsula helps to define the harbour, which forms the core of Sydney. South Head is strongly associated with the historic themes of Aboriginal cultures and interaction with other cultures, transport; defence, leisure; and creative endeavour.

The Birrabirragal people occupied the South Head peninsula, managing the vegetation, and fishing and collecting shellfish from the surrounding rock platforms and waters. When Europeans arrived in 1788, South Head was the site of a number of meetings of groups of Birrabirragal and Europeans, and more sustained interaction took place after the establishment of the signal station at Outer South Head in 1790. The following decades saw the alienation of the study area and surrounding areas from the local Aboriginal people, although some small groups continued to live in the wider Woollahra area throughout the nineteenth century and continued some of their traditional practices.

South Head is the southern gate to the harbour that became home to the Sydney Cove settlement. The South Head peninsula became important in the first decades of the Colony for signalling and observation, and regulation of harbour traffic, and this role continues. In the 1850s, two aids to harbour navigation were constructed within the study area, including the Hornby Light Station and the navigation obelisk at Green Point.

The earliest permanent defence installations on Sydney Harbour were located at Dawes Point and Bradleys Head, both close to the centre of Sydney via water. South Head became important whenever the defence policy was to keep the enemy out of the harbour altogether, a philosophy which dominated defence planning from the 1870s. South Head remained an essential element in Sydney's topography of defence until the conclusion of WWII. A complex system of batteries, searchlight emplacements, magazines, trenches and rifle walls, thoroughfares and accommodation and administration buildings were

constructed on Inner South Head from the 1850s onwards. Remains of some of these structures and parts thereof fall within the study area, while others are within HMAS Watson, which continues the military use of the headland.

Defence training also became an important aspect of military activities on South Head. The School of Artillery operated at Gap Bluff from 1895 to the beginning of WWII.³ Following the war, the military reserve encompassing Inner South Head was taken over by the Royal Australian Navy and used as a training facility: HMAS Watson Radar Training School was commissioned on 14 March 1945. HMAS Watson continues this defence training function, as the headquarters for the Training Authority Maritime Warfare of the Royal Australian Navy.

The South Head peninsula was attractive for leisure and creative purposes from the early nineteenth century, being close enough to Sydney for day-trippers to access, but far enough away to provide the adventure or tranquillity they desired. The resorts and inns that entertained visitors are all outside the study area, and it has more consistently been the passive leisure activities of walking, picnicking and admiring the scenery that have been undertaken within the study area. The vistas towards the study area from Bellevue Hill and The Gap have been regularly sketched, painted, photographed and engraved. With the decommissioning of a number of the defence and navigation facilities in the mid to late twentieth century and their acquisition by the National Parks and Wildlife Service (NPWS), new opportunities for leisure and the understanding of Sydney's history have opened up.

The South Head peninsula is compact, and the favoured places of the Birrabirragal people, and navigational, defence, leisure and residential uses have long competed for the same small space. As this history shows, there have been constant interactions between the thematic strands of South Head's history. Aboriginal people and Europeans interacted and co-habited; navigation and military sites overlap with each other and with favourite recreational places; and buildings have been used and reused for different purposes.

A number of detailed reports and archival reviews concerned with specific structures or precincts within the study area have been undertaken previously. The research for this

³ The School of Artillery is also referred to as the School of Gunnery, and is referred to in this report as the School of Gunnery/Artillery to reflect the dual naming.

history was for the most part based on these reports, supplemented with other secondary sources.

2.2 Aboriginal Occupation of the South Head Peninsula

2.2.1 Aboriginal Occupation

There has been debate in recent scholarship about which language group the Aboriginal people living in the Sydney region belonged. It is thought that they belonged to the either the Eora or the Darug language group. Some researchers claim that the Aboriginal people who lived at South Head and the Watsons Bay area were known as the Birrabirragal clan (or band), belonging to the Darug language group.⁴ The economy of this group was based on the sea, fishing and collecting shellfish, particularly the rock oyster from the rock platforms. The thirty-three coastal sites recorded in 1984 within the Woollahra municipality (for the purposes of a heritage study for the Municipality of Woollahra) reflected a rich seafood diet, supplemented by animal food and vegetables. The importance of fish in the diet and economy of the Birrabirragal people is reflected in the engravings of various fishes found at eleven of these coastal sites recorded in 1984. A midden at Nielsen Park (to the south of the study area) contains mussel, cartrut, ear and cowry shells.⁵

As at June 2007, at least eleven Aboriginal sites have been identified within the study area, including rock engravings, rock shelters and middens. These sites represent a significant aspect of the Aboriginal history of the South Head peninsula, providing a tangible link to the past as well as evidence of pre-contact subsistence and religious activities. The middens and the rock shelters demonstrate the survival techniques used by Aboriginal people prior to European occupation, while the rock engravings demonstrate the spiritual and creative life of pre-contact Aboriginal society.⁶

In his 1984 history of the Woollahra Municipality, historian Ian Jack suggested that local Aboriginal groups may have cleared small areas of heath for campsites as well as for burning off, but no archaeological evidence has been found to throw light on the specifics of these practices. The extensive residential development of the peninsula to the south of the study area (namely Watsons Bay and Vaucluse), and disturbance of the study area by

⁴For more on the debates in recent scholarship about which language groups and clans (bands) the Aboriginal people in the eastern suburbs of Sydney belonged, see: www.waverley.nsw.gov.au/library/localstudies/historical/aborigin.htm

⁵Hughes Trueman Ludlow, *Heritage Study for the Municipality of Woollahra*, 1984, Vol 1, pp. 2-3, 4-5

⁶See Comber 2006 for further detail.

military and lighthouse related activities has removed the more obvious remains of the many campsites and other evidence that could have provided information about Aboriginal pre-contact/contact use of the study area.⁷ Rock shelters have been identified on Vaucluse Point and around South Head, Lady Bay and Camp Cove. Few middens were located, in comparison with what might be expected, perhaps due to the colonists' exploitation of the middens for lime burning activities. While the hand stencils, engravings and paintings are a very important part of the area's heritage, they do not yield a lot of information about the ways Aboriginal people lived in the area.⁸

Journals and letters of Europeans arriving on the First Fleet document a few of the practices of the Aboriginal people around South Head. Aboriginal people were often encountered in their canoes, women fishing with hook and line, and men spearing fish from the rock platforms. William Bradley, First Lieutenant on the *Sirius*, wrote of Aboriginal people on the high ground of South Head gathering a fruit, which they soaked in water and sucked, and he also observed a man at Camp Cove preparing a root by pounding it, for his children to eat.⁹

Canoes were made of bark, often from the 'she-oak' *Casuarina*. Governor Phillip wrote to the Colonial Office about the Aboriginal clans around Port Jackson, claiming that the area to the south of the harbour from South Head to Sydney Cove was known as Cadi, and the clan the Cadigal. However recent research suggests that the Cadigal actually inhabited an area closer to Sydney Cove.¹⁰

Europeans recorded Aboriginal names for a number of the features and areas at South Head and the wider Woollahra area as they settled in the district. Daniel Southwell, midshipman of the *Sirius*, documented the name 'Burra-wa-ra' for Inner South Head, which encompasses the study area excepting Green Point, and 'Mit-ta-la' for Green Point. A parish map of 1900 gives the same name for Inner South Head, though it is transliterated slightly differently as 'Burrowaree'; and gives Green Point the name 'Kubungnarra' (see Figures 2.1 & 2.28).¹¹

⁷ Hughes Trueman Ludlow, *Heritage Study*, 1984 Vol 1, pp. 2-3, 4-5, 56-73

⁸ Hughes Trueman Ludlow, *Heritage Study*, 1984 Vol 1, pp. 2-3, 4-5, 56-73

⁹ Bradley, William., *A Voyage to NSW, 1786 - 1792*, facsimile of original manuscript, Trustees of the Public Library of NSW and Ure Smith Pty Ltd, Sydney, 1969, pp. 108, 110, 117-18

¹⁰ Martin, Megan, *A Thematic History of Watsons Bay*, Watsons Bay Heritage Conservation Study, May 1997, pp. 15-16

¹¹ Jervis, James, *The History of Woollahra. A Record of Events from 1788 to 1960*, Municipal Council of Woollahra,

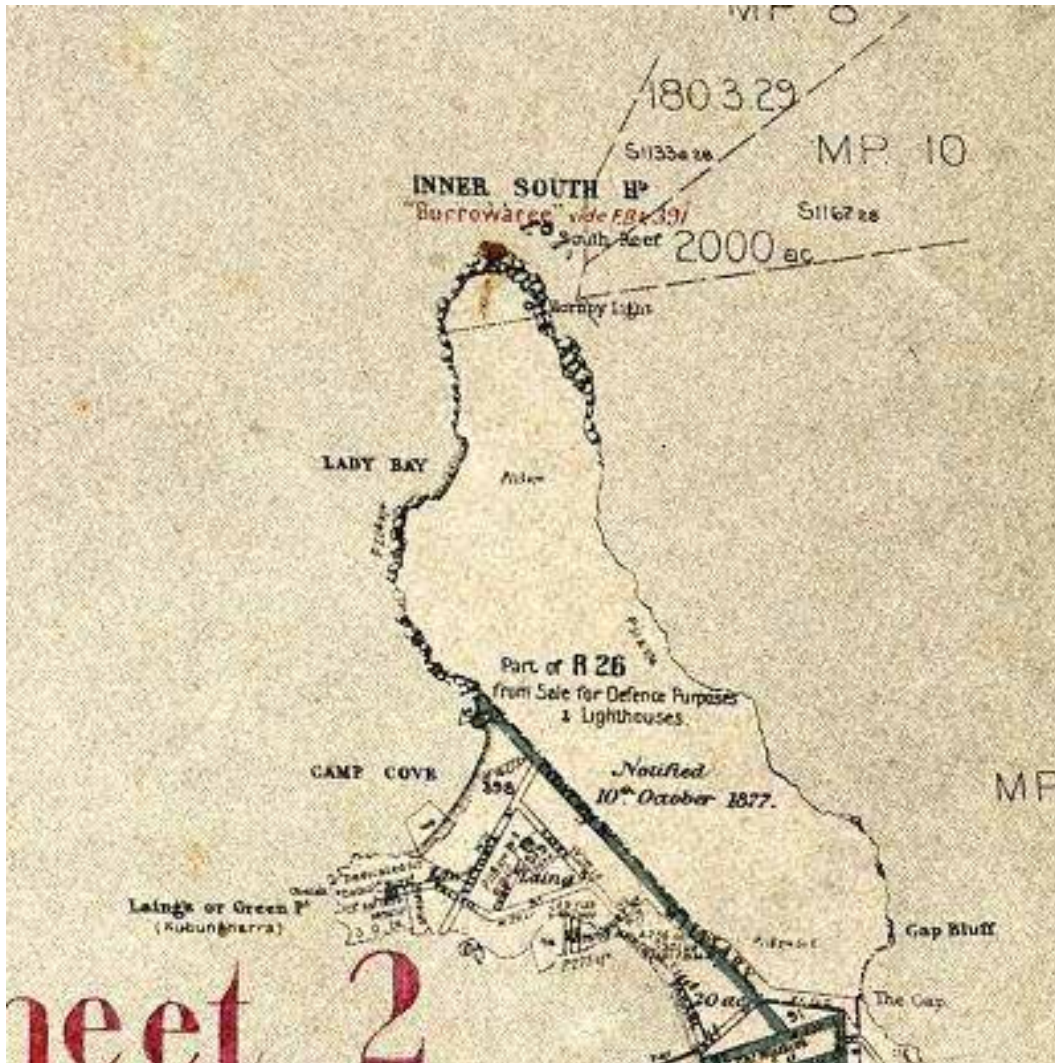


Figure 2.1. Part of a 1900 map of the Parish of Alexandria, showing Aboriginal names for South Head: 'Burrowaree', and Green Point: 'Kubungnarra'. (Source: Detail of Parish Map – 14036701, Metropolitan Office Set, Land and Property Information NSW, 1999)

2.2.2 Aboriginal - European Interaction, 1788 to 1790s

Camp Cove was the Europeans' first landing spot in Port Jackson. On the morning of 21st January 1788 Governor Phillip and a small party of officers and marines set off from Botany Bay in three boats to examine the harbour, which had been named Port Jackson by Cook in 1770. The boats were seen in transit by several groups of Aboriginal people on the shore, greeting the strangers with the chant 'Warra-warra-warra.' One member of the party, David Collins, wrote 'by the gestures that accompanied them, the words could not be interpreted into invitations to land or expressions of welcome'.¹² The boats rounded South Head and

Sydney, c1960-65, p. 64; Southwell, letter to the Rev W. Butler, 27th July 1790, *Historical Records of NSW*, The Library Committee of the Commonwealth Parliament, Sydney, 1914, Vol. 2, pp. 699, 718-19

¹² David Collins cited in Jervis, James, *The History of Woollahra*, c1960-65, p. 1.

landed on a small beach just inside the harbour and cooked a meal. The beach was marked on a 1788 map as 'Camp Cove', as shown in Figure 2.3.

In the decade from 1788 to 1798, South Head became of interest to inhabitants of the nascent colony as both a navigational reference point and as a lookout. A number of trips were taken to the peninsula and surrounding waters for the purpose of recording the latitude and to document the natural features which acted as navigation markers for boats and ships entering or leaving the harbour.¹³

Diarists such as David Collins and William Bradley documented interactions with Aboriginal people on their visits to the South Head peninsula, although it is important to note that the interactions around South Head alone provide an incomplete picture of the complex and rapidly changing relationships developing between the Aboriginal peoples of the Sydney area and the colonists in the first decades of European settlement.¹⁴

A week after the first landing at Camp Cove on 21st January 1788, Bradley recorded a friendly encounter with a group of Aboriginal people in canoes. Three Aboriginal men from the group approached the party of Europeans 'cordially', leaving their spears on the sand at some distance, while the Aboriginal women remained in their canoes. The Aboriginal men inspected the boat and watched the way the new arrivals cooked. After lunch, Bradley and his party rowed off, passing the women in the canoes. While the women ran into the scrub to hide, the men followed the boat along the shore.¹⁵

A few months later, Bradley and Collins referred to a less congenial interaction with the Aboriginal people at South Head peninsula. When the party of Europeans landed at Camp Cove on this occasion, the Aboriginal people retreated. Two Aboriginal men remained on the beach to receive the party, one of them showing a wound on his shoulder, indicating he had been injured. Collins noted the different reaction of the Aboriginal people to their presence following the incident.¹⁶

¹³ Bradley, William, *A Voyage to NSW*, 1969, pp. 78, 110, 117-8

¹⁴ Stanner, W.E.H. 'The history of indifference thus begins', *Aboriginal History*, Vol. 1, 1-2, 1977, pp. 3-26

¹⁵ Bradley, William, *A Voyage to NSW*, 1969, p. 66

¹⁶ Bradley, William, *A Voyage to NSW*, 1969, p. 94; Collins, David, *An Account of the English Colony in NSW*, Volume 1, originally published 1798, edited by B.H. Fletcher, The Royal Australian Historical Society, Sydney, 1975, p. 19

South Head was often used as a lookout, with inhabitants of the colony gathering there to farewell ships from the First Fleet on their return to England. In May 1788, Bradley recorded an encounter with a group of Aboriginal people in canoes who pulled up beside the *Sirius*, which had just seen off three ships returning to England, via China. Passing back through Camp Cove, the Colonists met an Aboriginal man with two children; they looked hungry and sick, the man having sores on his skin. The European party gave the Aboriginal man some salt beef, and a fish and birds they had just caught, and he prepared the food for the children.¹⁷ On 17th July 1788, South Head was again used as a lookout when inhabitants of the colony gathered at South Head to farewell the *Alexander, Prince of Wales, Borrowdale* and *Friendship*, on their return trip to England.¹⁸

The small permanent settlement of Europeans at the signal station established at Signal Hill (at Outer South Head) in January 1790, led to further interactions between European and Aboriginal people (see more on the Signal Station at 2.3.1 of this report). As mentioned above Daniel Southwell compiled a list of Aboriginal names for the local features while posted at the signal station at Watsons Bay; Southwell sent this list of Aboriginal names to his uncle, the Reverend Weedon Butler. Writing in July 1790, he noted that the numbers of Aboriginal people had greatly diminished, and partly attributes this to the smallpox epidemic of 18 months past, and to a retreat along the coast to get away from settlers. Southwell wrote 'we now have very little intercourse with them, and if we now and then do converse it is at a distance'.¹⁹ In mid January 1791, a group of Aboriginal people took the folded signal flags from their usual spot near the flagstaff and were later seen in their canoes distributing the flags and using them as coverings.²⁰

¹⁷ Bradley, William, *A Voyage to NSW*, 1969, pp. 108, 117-8

¹⁸ Bradley, William, *A Voyage to NSW*, 1969, pp. 78, 110, 117-8

¹⁹ Southwell, letter to the Rev W. Butler, 27th July 1790, *Historical Records of NSW*, Vol. 2, p 718-19

²⁰ Southwell, letter to the Rev W. Butler, 27th July 1790, *Historical Records of NSW*, Vol. 2, p 718-19; Collins, David, *An Account of the English Colony in NSW*, Volume 1, originally published 1798, 1975, p. 122



Figure 2.2. *Painting by Joseph Lycett, c1820 depicting an Aboriginal family walking along a track near today's Hermit Point between Rose Bay and Vacluse, some distance to the south of the study area, against a backdrop of European settlement (Source: McPhee, John, Joseph Lycett. Convict Artist, Historic Houses Trust of NSW, Sydney, 2006, 'A distant view of Sydney and the harbour, Captain Piper's Naval Villa at Eliza Point on the left, in the foreground a family of Aborigines.' p. 104)*

2.2.3 Maintaining an Association

Despite the alienation of Aboriginal groups throughout the Sydney area in the late eighteenth and early nineteenth centuries, and despite the increasing European population on the peninsula, co-existence of small groups of Aboriginal people with the settlers in the Woollahra area continued across the nineteenth century. The record of these people and their interactions with the European community survives in the form of a number of stories about Aboriginal people who lived in a variety of circumstances, with differing relations with the surrounding settlers and visitors to the area. Some were possibly Birrabirragal people who maintained an association with the study area. All the stories are through the eyes of Europeans, and some of them are poorly attested.

James Jervis offers a number of accounts of small Aboriginal groups residing in the Woollahra area into the latter half of the nineteenth century. His rather anecdotal accounts are drawn from other secondary sources and local European oral traditions, but related information may also be preserved in documentary sources of the time, such as newspapers. Jervis identified '...the knoll of high ground that overlooks Double Bay, where Ina Terrace was later built' as 'the last camping place of the natives'. Jervis names 'old Wingle', his wife 'Kitty' and 'Bondi Charley' as among the Aboriginal residents at Double Bay, and refers to one dimension of their interactions with Europeans: taking contributions

in return for demonstrations of boomerang throwing. In 1868, a corroboree was held at Double Bay for the entertainment of the Duke of Edinburgh. Jervis claims that the Aboriginal name for Double Bay was Diendgulla.²¹

Emma's Well, which marks a natural spring near the New South Head Road opposite Kambala School, is perhaps named for an Aboriginal woman. Mitchell Librarian C.H. Bertie, stated in 1939 that a man named Patrick Reynolds used to fish at Vauclose as a boy, and knew an old Aboriginal couple that lived in a slab hut near today's Rose Bay convent, Peter and Emma Collins. Patrick used to see Emma carrying water from the spring back to her hut, and one day in 1874, he chalked 'Emma's Well' on the rocks next to the spring. There are several other names for the well.²²

A story published by local historian Nesta Griffiths in 1947 points to the continued value of the local natural resources to Aboriginal groups through the nineteenth century, and provides an example of the way in which their rights to access these resources could be acknowledged, but then contested if European settlers found co-existence inconvenient. In recording a story of dispossession of the local Aboriginal people, Griffiths reports that into the 1870s an Aboriginal couple she names Gurrah and Nancy 'owned' fishing rights to the Double Bay beach subsequently known as Seven Shillings Beach. Griffiths makes reference to one of the group's links with other local groups, stating that Nancy's sister Sophie lived 'near the spring' at Vauclose. The couple and their group camped at Double Bay adjacent to the property known as 'Redleaf', purchased by Mr and Mrs William Busby in 1871.²³

William Busby was the sixth son of John Busby, and worked for his father on Busby's Bore until 1834, when William himself was appointed by Governor Bourke to oversee completion of the project.²⁴ Griffiths reported that the Busbys found co-existence with Gurrah and Nancy's group troublesome. Mrs Busby offered blankets, clothes and flour to her Aboriginal neighbours but hoped that they would move away. The story goes that when she attempted to purchase their fishing rights to this end, Gurrah nominated seven shillings as his price.

²¹ Hughes Trueman Ludlow, *Heritage Study*, 1984 Vol 1, pp. 2-3, 4-5; Jervis, James, *The History of Woollahra*, c1960-65, p. 52; G Nesta Griffiths, *Point Piper Past and Present*, Ure Smith, Sydney, 1947 (no page number) is 'cited' by Jervis pp 44-5. Her second edition, of 1970, p. 83 is cited by Hughes Trueman Ludlow pp. 4-5

²² Jervis, James, *The History of Woollahra*, c1960-65, p. 148; 'The Story of the South Arm', *RAHS Journal and Proceedings*, 1951, Vol XXXVII, part IV, p. 225

²³ Jervis, James, *The History of Woollahra*, c1960-65, p. 52

²⁴ Australian Dictionary of Biography online, William Busby 1813–1887: <http://www.adb.online.anu.edu.au/biogs/A030289b.htm>

Mrs Busby held out a while, but found that her chickens and eggs were disappearing, and gave Gurrah the money. The group moved to what is now Rona Garden on Victoria Road, but Gurrah and his family are said to have visited the Busbys annually from then on. Seven Shillings Beach is said to be named after this transaction.²⁵

Later residents of the area and the fledgling Municipality of Woollahra acknowledged the Aboriginal heritage of the area to some extent, through place names. The name Woollahra was taken by Daniel Cooper for his mansion in 1856, and in 1860 it was adopted for the Woollahra municipality. George Thornton, first Chairman of Woollahra, mentioned another name that he thought might have been more appropriate for the municipality: 'Euranabie', spelled in 1897 as 'Yaranabie', which was said to be the name of the old chief of the tribe living at South Head when Phillip arrived.²⁶

2.3 Shipping, Navigation and Communication

Ships travelling to Australia from Europe sailed via the Cape of Good Hope, around Tasmania, and approached Port Jackson from the south. A ship entered the harbour by rounding South Head, into the sound between the three heads, and then turned south for two and a half miles, before turning to the west again around Bradleys Head. South Head and Green Point were recognised as important harbour navigation points by the Europeans. The 1790s saw the establishment of a signal station at Outer South Head and a pilot station at Watsons Bay (as shown in Figure 2.5, the tip of the South Head peninsula is referred to as Inner South Head to distinguish it from the bluff adjacent to the Signal Station further south, known as Outer South Head).

Although these stations were outside the study area, their establishment was significant to the history of the South Head peninsula as it saw the alienation of the peninsula from the Birrabirragal and its incorporation into a European landscape of navigation and communication and part of the known and imagined landscape of many colonists. Navigational aids constructed in the first half of the nineteenth century included the Macquarie Lighthouse, and from 1836, a manned light ship which marked the Sow and Pigs Reef at the entrance to the harbour and helped ships to find the southern channel leading

²⁵ G Nesta Griffiths, *Point Piper Past and Present*, Ure Smith, Sydney, 1947 (no page number) is 'cited' by Jervis, c1960-65, pp 44-5. The second edition of this publication, dated 1970, p. 83 is cited by Hughes Trueman Ludlow, *Heritage Study*, 1984 Vol 1, pp. 4-5

²⁶ Jervis, James, *The History of Woollahra*, c1960-65, pp. 55, 123

to Sydney Cove.²⁷ In the late 1850s, two aids to harbour navigation were constructed within the study area, the Hornby Light Station on the tip of South Head (currently owned by the Sydney Ports Corporation, although the associated keepers' cottages are owned by DECC) and a navigation obelisk on Green Point.

For the remainder of the nineteenth century and for most of the twentieth century, navigational activities continued on the peninsula at the Macquarie Lighthouse as well as the Signal Station, both at Outer South Head (outside the study area). The Maritime Services Board ran the station until 1992, when the board consolidated its operations at the Port Operations Control Centre at Millers Point. South Head Signal Station is now occupied by members of the Australian Volunteer Coastguard, servicing small craft and recreational boaters.

2.3.1 The Signal Station at Signal Hill, Outer South Head

In January 1790, Governor Phillip ordered a signal station to be set up at South Head, on the suggestion of Captain John Hunter. Supplies were running short, a feeling of isolation had set in, and news of the arrival of any vessel was of greatest consequence. There were also concerns that ships en route may not have received news of the selection of Sydney Cove for the colony in preference to Botany Bay. Hunter, along with Surgeons White and Harris, set out for South Head with six men.

The party lived in a tent for ten days, and built the flagstaff and a modest lookout house to the south of the study area at Outer South Head, in the vicinity of the present Signal Station. The flagstaff was sited on high ground where it could be seen from the observatory at Dawes Point on the western side of Sydney Cove, as well as from ships at sea. In May 1790, a bricklayer's gang and some carpenters erected two huts to accommodate midshipman Daniel Southwell, and a small group of seamen from the *Sirius*. The party was provided with a boat for fishing, and they established a vegetable garden.²⁸ By July 1790, eleven men were stationed at the lookout. Initially the signal station was supplied and

²⁷ Stephensen, P. R., *The History and Description of Sydney Harbour*, Rigby Ltd., 1966 pp. 7-8, 24

²⁸ The Woollahra History and Heritage Society suggests that these cottages, and associated gardens, were located in the vicinity of present-day Robertson Park, not near the Signal Station.

relieved by boat from the settlement 8 kilometres away, but later a foot track was established linking the station to the settlement over 12.8 kilometres.²⁹

Such was the longing for news and supplies from England, that it was not only the signalmen who used South Head as a lookout. In what might be thought of as South Head's first recreational use, Collins wrote that there 'were the walks of the inhabitants of Port Jackson daily directed, fondly indulging a pleasing delusion that the very circumstance of looking for a sail would bring one into view'.³⁰ The signal station's flag was hoisted for the first time when the *Supply* returned from Norfolk Island on 10th February 1790, and then there was a long wait, broken by the arrival of the *Lady Juliana* on 3rd June 1790. Watkin Tench writes of the overwhelming tearful joy (which was to be short-lived) that swept over the colony when the flag was raised on that occasion.³¹

As shipping activity and settlement associated with the colony intensified, the facilities at Outer South Head were further developed. Fires lit on South Head were used to guide ships into the harbour from 1793, and subsequently a tripod was set up with an iron basket in which a fire was kept burning. This navigational aid was superseded in 1818 by Australia's first formal lighthouse. Named the Macquarie Lighthouse, it was built on high ground to the south of the flagstaff to a design by Francis Greenway.³² The signal station was also further developed with a system introduced in 1832 to relay signals from the South Head station to Parramatta via stations at Observatory Hill, Gladesville and Dundas using signal flags; the introduction of semaphore in the 1840s, and the telegraph in 1858. The brick signal column, erected in September 1790, was replaced by a stone tower in 1838; this tower was probably raised to its current height in the 1890s. Residences were also built near the tower for the signal master and his assistant, and these buildings survive.³³

²⁹ Hughes Trueman Ludlow, Heritage Study, 1984 Vol 1, p. 3, 23; Oppenheim, Peter. *The Fragile Forts. The Fixed Defences of Sydney Harbour, 1788 - 1963*, Army History Unit, Department of Defence, Canberra, 2004, p. 7; Jervis, James, c1960-65, p. 2-3; Rowland, E. C., 'The Story of the South Arm', RAHS Journal and Proceedings, 1951, Vol. XXXVII, Part IV, p. 35

³⁰ Jervis, James, *The History of Woollahra*. c1960-65, p. 2-3

³¹ Jervis, James, *The History of Woollahra*, c1960-65, p. 2-3; Oppenheim, Peter. *The Fragile Forts*, 2004, p. 7

³² Jervis, James, *The History of Woollahra*. c1960-65, p. 2-3, 15; Graham Brooks and Associates, Conservation Management and Cultural Tourism Plan. NPWS Lighthouses, November 2001, p. 28; McNamara Soder Associates, Officers' Mess, Gap Bluff, A Research Study, prepared for the National Parks and Wildlife Service, 1989, p. 6. Graham Brooks and Associates, Conservation Management and Cultural Tourism Plan, 2001, p. 28; Jervis, James, *The History of Woollahra*. c1960-65, p. 16

³³ Martin, Megan, *A Thematic History of Watsons Bay*, 1997, p. 18

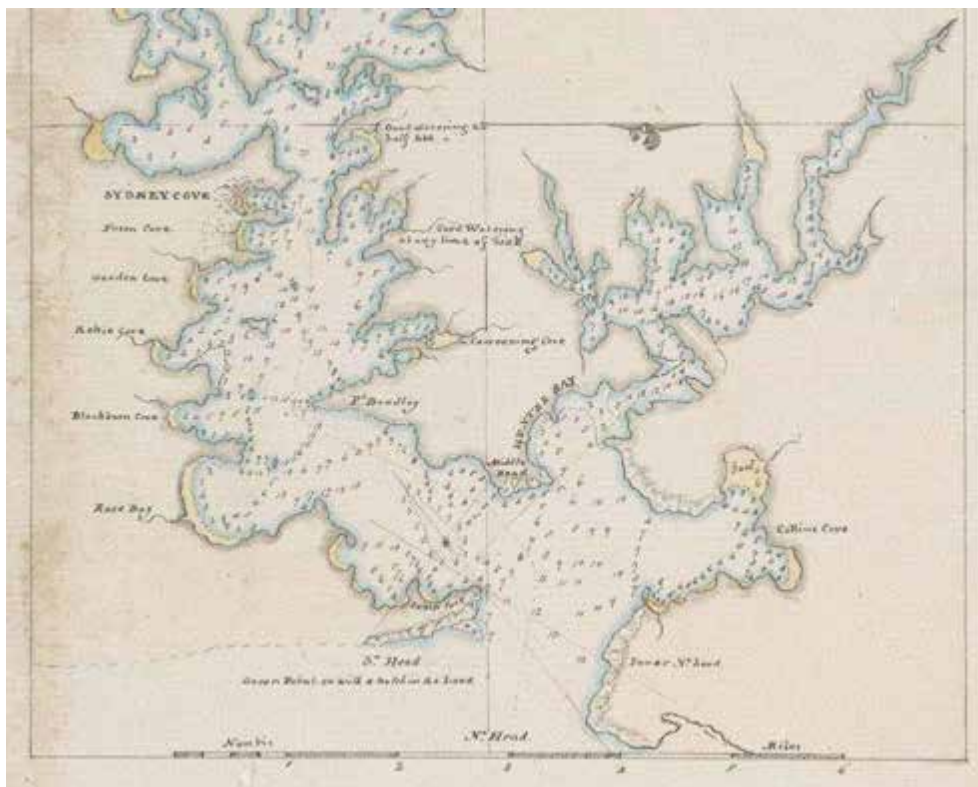


Figure 2.3. Part of George Raper's, 'Chart of Port Jackson NSW as Survey'd by Captn John Hunter...1788', showing the tip of South Head, Camp Cove and Green Point crossed by the lines of navigational calculation. (Source: NLA Map RM 3458 held at MS 9433 <http://nla.gov.au/nla.map-rm3458>)

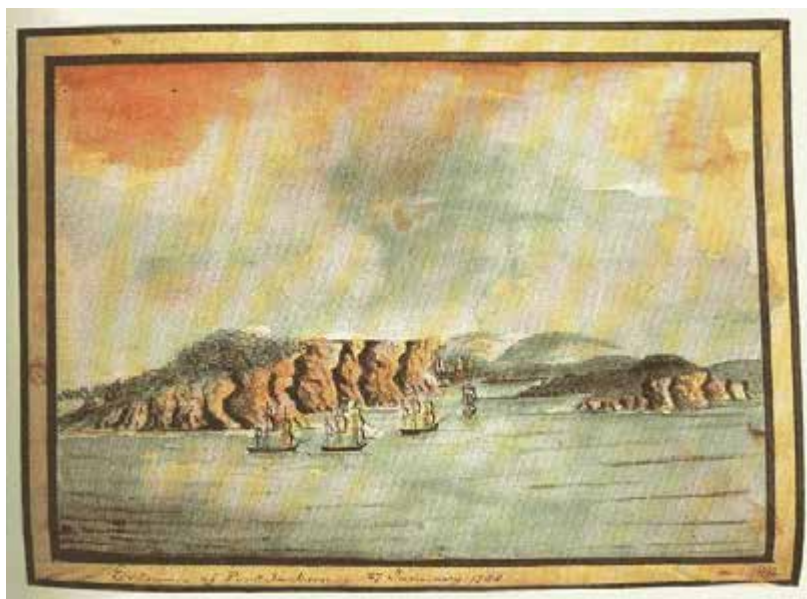


Figure 2.4. William Bradley, 'Entrance of Port Jackson', 27 January 1788, watercolour, showing the fleet rounding South Head. (Source: Cassidy, Goddard, Lawrence, May and Poland, *Impressions of Woollahra. Past and Present*, Allen and Unwin, Sydney, 1988, p. 5)

2.3.2 The Pilot Station at Watsons Bay

European activities on the peninsula and in the waters surrounding South Head further intensified with the establishment of a government fishery and pilot station at Watsons Bay. The fishery was set up in the context of severe food shortages, the catch to be ‘exclusively for the use of the sick’. The director of this fishery, Mr. Barton, had previous experience as a pilot, and was directed to board all ships entering the harbour and to pilot them to Sydney Cove.³⁴

Increased ship traffic into the harbour around the turn of the nineteenth century, and security concerns during the early years of the Napoleonic Wars gave the observational and piloting activities based at South Head and Watsons Bay increased importance. In 1811 Robert Watson, previously signalman, was appointed Harbourmaster and pilot. Watson was probably the first person to build a private house in the vicinity of Watsons Bay, a stone building (later known as Clovelly) on a land grant at the south end of the bay that was to take his name. Subsequently, and through parts of the nineteenth century, a number of private concerns based at Watsons Bay provided the pilot service using their own boat and crews, and negotiating their own pilotage fees. From the 1820s it appears that the rowing crews were often Maori men or South Sea Islanders. Pilots and rowing teams (in whaler’s-style rowboats) raced each other out to ships as they neared Sydney, competing for the charge of each ship. They are reputed to have gone as far south as Jervis Bay to be the first to meet a ship.³⁵

2.3.3 Old South Head Road

Access to South Head via the Old South Head Road was improved in 1811. This, the first road in Governor Macquarie’s major road making program, improved on the rudimentary track which had been cleared to South Head by Surgeon John Harris in 1803. The road did not extend into the study area, terminating at the signal station at Outer South Head, but by improving access to the entire peninsula it facilitated the intensification of activities at South Head and changed the context of the peninsula, in effect bringing it closer to Sydney Town.

³⁴ McNamara Soder Associates, *Officers' Mess, Gap Bluff*, 1989, p. 6; Stephensen, P. R., *The History and Description of Sydney Harbour*, Rigby Ltd., 1966 p. 22

³⁵ Stephensen, P.R. *The History and Description of Sydney Harbour*, Rigby Ltd, Adelaide, 1966, p. 24.

The eleven kilometre road was constructed by soldiers of the 73rd Regiment, and was paid for by public subscription. An obelisk celebrating the completion of the road was erected at Watsons Bay. Macquarie described this road as 'A Well finished Carriage and Gun Road from the Town of Sydney to the Light House and Signal Post on the South Head of Port Jackson - 7 miles'.³⁶ The purposes of the road were associated with shipping, communication and defence. It was constructed to allow access to incoming vessels temporarily anchored at Watsons Bay while awaiting berths at Sydney Cove, for messengers and the unloading of mail. Ships also waited at Watsons Bay for their papers to be checked, or for favourable winds. The road to South Head allowed official and commercial messengers, newspaper reporters and others to drive or ride out to meet the vessels and collect news of the cargo and people on board sometimes days before the ship gained a berth at Sydney Cove. The road itself was also the first defence related infrastructure to be constructed on the peninsula, as the road's other main purpose was to allow the rapid movement of men and cannon to South Head in the event of an emergency.³⁷

Despite the new road, South Head and its small communities at Watsons Bay and the signal station remained isolated across the first decades of the nineteenth century, separated from Sydney by swampy and sandy land that held little immediate attraction for farming, and by a series of shallow bays unsuitable for any regular use by ocean-going ships.³⁸

2.3.4 The Water Police Station

In the 1840s the role of the South Head peninsula as a base for regulating and monitoring harbour traffic was enhanced, with the relocation of the Water Police Station from Garden Island to the eastern side of Camp Cove (within the study area, see map of area showing the Water Police site at Figure 2.12; see also Figure 2.17). The new site commanded a good view of the harbour, had a beach to haul boats up onto, and was in a good position for the execution of one of the Water Police's primary tasks: to intercept convicts attempting to escape Sydney by boat. The station at Camp Cove initially consisted of an inspector, Alfred Austin and his wife, six constables and a boatman, housed in demountable timber buildings on brick footings. In 1841, a Water Police Office building was constructed, and a stone kitchen attached to the station. A stone wharf was constructed by 1842. The inspector

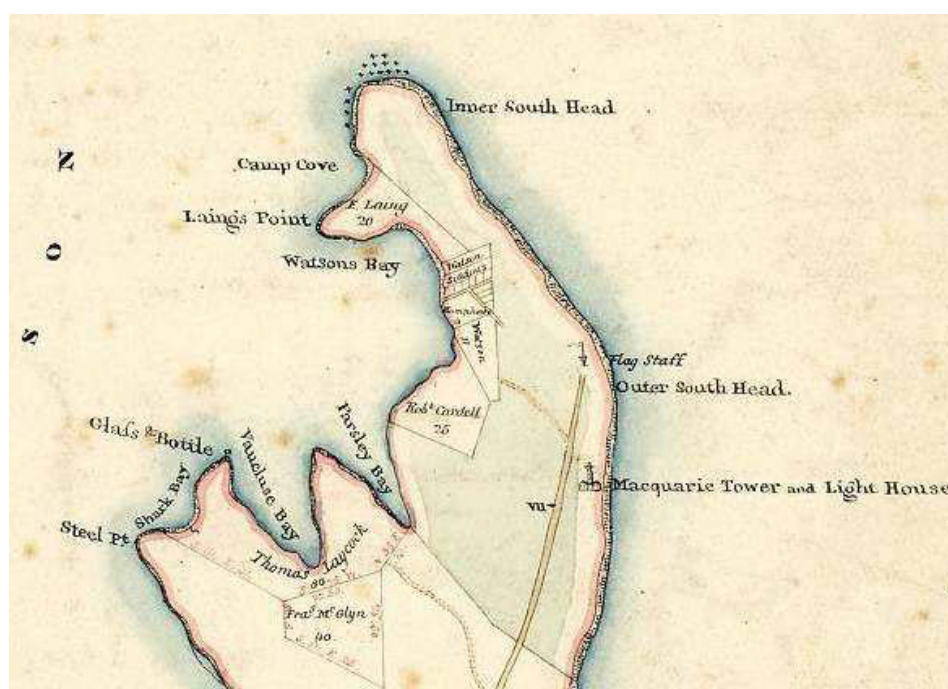
³⁶ Oppenheim, Peter. *The Fragile Forts*, 2004, p. 22.

³⁷ Oppenheim, Peter. *The Fragile Forts*, 2004, p. 15-16, 22; Jervis, James, *The History of Woollahra*. c1960-65, p. 74

³⁸ Hughes Trueman Ludlow, *Heritage Study*, 1984 Vol 1, pp. 3-4

moved into the office, leaving the convict boat crew in the demountable “wooden box”. The Water Police station was occupied intermittently until 1867, when the site was probably taken over by the pilot service, previously stationed at Watsons Bay. In 1875 the service’s steamer was moored at Camp Cove. A photograph taken between c1869 and c1875 shows structures probably associated with the Water Police station at Camp Cove, including a main residence, a low timber clad building with verandah, hipped roof and skillion at the rear; and two or three smaller timber structures, as well as a stone building, which was possibly the 1841 kitchen, although it lacks a chimney (see Figure 2.26).³⁹

The census of 1841 listed eleven households at Watsons Bay and four at South Head. These included the Water Police; pilots and their families, and their crews; superintendent of the Macquarie Lighthouse, Richard Siddins and his wife and five children; a boat builder, Michael Humphries and his family; William Wilson, signal master; and the two marine villas *Clovelly* and *Zandvliet*, the latter built by Colonial Treasurer, Pieter Laurenz Campbell.⁴⁰



³⁹ McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, p. 6; Martin, Megan, 1997, p. 75; Returns of the Colony for 1841, 4/273, p. 186, cited by Martin, Megan, A Thematic History of Watsons Bay, 1997, p. 75; Ayre, Jodi, Statement of Heritage Impact, Cliff Street, Watsons Bay. Proposed road reconstruction and drainage improvement works, March 2006, p. 6; Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p

⁴⁰ Graham Brooks and Associates, Conservation Management and Cultural Tourism Plan, 2001, p. 28; Wilson, G.C., *Sydney Harbour Fortifications Archival Study*, March 1985, p. 1.3.; Martin, Megan, A Thematic History of Watsons Bay, 1997, pp. 32-4, 86; Jervis, James, *The History of Woollahra*. c1960-65, pp. 4-5, 13; Hughes Trueman Ludlow, Ludlow, Heritage Study, 1984 Vol 1, p. 5; Stephensen, P. R., *The History and Description of Sydney Harbour*, Rigby Ltd., Sydney, 1966 p. 23; Oppenheim, Peter, *The Fragile Forts*, 2004, p. 18; Stephensen, P. R., *The History and Description of Sydney Harbour*, Rigby Ltd., 1966 pp. 7-8, 24

ships in the harbour flew flags at half-mast. The bodies, which had washed up for days after the event, were buried in Camperdown Cemetery by candlelight. No blame was attached to Captain Green or his officers for the loss of the ship.⁴¹

The subsequent report from the Light, Pilot and Navigation Board, presented in September 1857, concluded that the Macquarie Lighthouse with its revolving light was an excellent aid for ships at a distance. However, an additional aid in the form of a fixed white light mounted on South Head was needed to help ships close in to the heads. This recommendation was very quickly put into effect. Colonial Architect, Alexander Dawson submitted his plans for the three keeper's cottages by 28th September 1857. Tenders for the construction of the station were called through the Government Gazette on 2nd October 1857. While planning was in progress, another ship, the *Catherine Adamson* was wrecked under similar circumstances, the event giving greater weight to the importance of the work. The light was referred to in the Statistical Register for 1858, and similarly in the Government Gazette of 4th June 1858 as completed. Hornby Light was named after either Sir Phipps Hornby, an admiral in the British Navy, or his daughter, Lady Denison, wife of the Governor. It was first lit on 1st June 1858.⁴²

Heritage consultants David Sheedy and Graham Brooks feel that the reticence of the 1858 records about the completion of the Lightkeepers' cottages, and the money spent on additional works at the Hornby Light complex in 1860 –61, indicate that the Head Lightkeeper's Cottage (with a detached kitchen and small stable or shed at rear) was completed three years later than the Assistant Lightkeepers' cottages.⁴³

The total estimated cost of the project was £2,732; the light to be used was already in the possession of the government and locally-quarried stone was to be used in construction.

⁴¹ Stephensen, 1966 p. 27; Russell, Eric, *Woollahra - A history in pictures*, John Ferguson, Sydney 1980, pp. 26-7, 110-111

⁴² Thorp, W., *Archival Report, Hornby Lighthouse and Associated Structures*, South Head, Sydney, prepared for the National Parks and Wildlife Service, June 1983, pp. 5-8.

⁴³ Graham Brooks and Associates, 2001, 'Supplementary Information. Hornby Lighthouse', p. 4; Sheedy, David, *Head Lightkeeper's Cottage, Hornby Light, Inner South Head, Port Jackson, NSW*, prepared for the National Parks and Wildlife Service, May 1998, p. 24; Note that a painting by Conrad Martens dated to 1859 shows only the Hornby Light and the Assistants' Cottages, lending support to the theory that the Head Lightkeeper's cottage was built in 1860. This painting was cited in reports by Thorp and Sheedy but was not referenced and was thus not available for verification for this CMP.

The plans for the tower and light are extant, but they are in very poor condition. The original plans for the cottages, however, have not been located.⁴⁴

The Hornby Lightstation was intended to guide ships in to shore. It is ranked as a 'harbour light', and thus of a lower light power order than a lighthouse such as the nearby Macquarie Lighthouse. Nevertheless, it was accorded the full complement of keepers' quarters in the form that became typical in the latter half of nineteenth century: a larger, detached headkeepers' cottage, and two semi-detached assistant keepers' cottages. This arrangement replaced the earlier pattern, exemplified by Macquarie Lighthouse, where symmetrical quarters were attached to the base of the tower. Detached quarters similar to those at the Hornby Light station can be found at other light stations designed by Alexander Dawson (Colonial Architect 1856-1862), including Nobbys Head, Newcastle (1858, in train when he designed Hornby Light), Cape St George (1860), Lookout Point, Eden (1862) and Point Stephens (1863). The lightkeepers cottages were usually very close to the light, as they are at the Hornby Light station. It was also usual for the Head Lightkeeper's Cottage to be sited closer to the lighthouse than the Assistant Lightkeepers cottage. At South Head, however, the siting of the lightkeepers cottages was reversed, with the Assistant Lightkeepers cottage closest to the Hornby Light.⁴⁵

Life at the coastal light stations of NSW was generally isolated. Often ex-seamen became lightkeepers, and made a family life at their posts, as the regulations usually specified for married men. The first keepers of the Hornby Light, as identified by Sheedy, were Head Keeper Alfred Brooks, and assistants H. Johnson (no relation to James Johnson) and J. Robinson.⁴⁶ Quarters adjacent to the lights were essential for their operation; the lights were generally turned manually, often requiring a three man operation through the night, although the Hornby Light was a fixed light, and may therefore have required less labour. The equipment and metal fittings required daily polishing to keep them in good order in the harsh conditions, and frequent repainting was necessary. Personnel were regularly transferred around between lighthouses, and this practice continued until the closure of most of the lighthouses in the 1990s. The lightkeepers kept logbooks to record the weather,

⁴⁴ Thorp, W., *Archival Report, Hornby Lighthouse and Associated Structures*, 1983, p. 6-7. Research undertaken in 2007 using the NAA and State Records online catalogues confirmed that the original plans for the cottages are not extant. Plans showing the 1877 and 1895 alterations are located at the NAA.

⁴⁵ Sheedy, *Head Lightkeeper's Cottage*, 1998, pp. 25, 27; Graham Brooks and Associates, *Conservation Management and Cultural Tourism Plan*, 2001, pp. 28, 31, 34-5

⁴⁶ Sheedy, *Head Lightkeeper's Cottage*, 1998, pp. 27-8

the shifts taken by the different keepers and other details. Only one logbook, for the period 1859–1861, survives for Hornby Light Station.⁴⁷

Minor repairs have been undertaken throughout the life of the station, but often the nature of the work and whether it was carried out on the light itself, or the quarters, is unspecified in the records. The most major alterations to the cottages were made in 1877–78, when sitting and living rooms were added to each cottage, necessitating changes to the verandahs (see Figure 2.10). These works were undertaken by the Colonial Architect's Office under James Barnett, Colonial Architect 1865–1890, who designed eleven coastal lighthouses in NSW.⁴⁸

An 1898 report described the quarters of the Head Lightkeeper at the Hornby Light Station as being comprised of six rooms with kitchen and storerooms; and the quarters for the two Assistant Lightkeepers as being of four rooms with kitchen and laundry. All three cottages were of dressed coursed rubble stone plastered inside, with roofing of galvanised iron, and verandahs to all principle fronts. One large underground rainwater tank was provided, as well as smaller iron tanks.⁴⁹

A 1913 report questioned both the practical value and the condition of the Hornby Light. The light was described as 'old and obsolete', and as having lost a degree of its importance, as the entrance to Port Jackson was now marked by leading lights on Grotto Point. The report acknowledged, however, that it was still of use in some circumstances and the retention of the light was recommended. The foundations of the Light tower had suffered from landslips, and renewal was seen to be required. The report noted that two Lightkeepers were stationed at Hornby Light, along with an Assistant Lightkeeper who also carried out relieving duties at other lighthouses.⁵⁰

The Hornby Light was converted to electricity in 1933, and operated un-staffed from this time. All the reflectors and lamps were removed and a single catadioptric lens was installed

⁴⁷ Sheedy, *Head Lightkeeper's Cottage*, 1998, pp. 27; Graham Brooks and Associates, Conservation Management and Cultural Tourism Plan, 2001, pp. 28, 34-5

⁴⁸ Thorp, W., *Archival Report, Hornby Lighthouse and Associated Structures*, 1983, p. 9, 10-11; Sheedy, *Head Lightkeeper's Cottage*, 1998, p. 26. NAA, Series A9568, Series Accession No. 2002/04860647.

⁴⁹ Carleton, H R, NSW Lighthouses, *Journal of the Royal Society* Vol XXXII 1898, cited in Thorp, W., *Archival Report, Hornby Lighthouse and Associated Structures*, 1983, p. 13-14.

⁵⁰ Brewis, C W, *Lighting the East Coast of Australia: Cape Morton to Gabo Island (including the coast of NSW)*, 1913, cited in Thorp, W., *Archival Report, Hornby Lighthouse and Associated Structures*, 1983, p. 15-16

with one 100-watt lamp. The beacon was equipped with a lamp-changer, so that on the failure of one lamp, the lens would immediately bring a new one into focus. All of the nineteenth century light stations were equipped with flagstaffs for signalling passing ships. The flagstaff at Hornby Light station has been removed, as at most other stations, but its former location to the west of the head keeper's cottage has been identified by Sheedy.⁵¹ It is likely that staff at the Hornby Light kept in close communication with the staff of the Signal Station, who kept a log of ship traffic entering and leaving the harbour, which played an important role in navigation, defence and communication during the nineteenth and twentieth centuries.

Lighthouse automation gained momentum from the early 1930s, with the Hornby Light being part of this wave. By 1941, only 57 manned lighthouses remained across Australia, compared with 118 automatic lights, buoys and lightships. The process of de-staffing lighthouses continued after WWII, and by 1990 most coastal lighthouses in NSW were automated.⁵²



Figure 2.7. This engraving, originally published in the *Illustrated Sydney News*, shows spectators watching a fleet depart Port Jackson in December 1881. The group in the foreground is clustered beside a gun pit with gun mounted.

⁵¹ Sheedy, *Head Lightkeeper's Cottage*, 1998, p. 27; Graham Brooks and Associates, *Conservation Management and Cultural Tourism Plan*, 2001, p. 21.

⁵² Thorp, W., *Archival Report, Hornby Lighthouse and Associated Structures*, 1983, p. 16; Graham Brooks and Associates, *Conservation Management and Cultural Tourism Plan*, 2001, p. 37-40

The mid ground shows the Hornby Light, and full complement of keepers' cottages surrounded by picket fences. The light station flagstaff is shown behind the head keeper's cottage on the left hand side of the picture (Source: *A Pictorial History of The Eastern Suburbs, Eastern Suburbs Newspapers, Randwick, 1977, p. 85*)



Figure 2.8. Hornby Light and cottage, 1884 (Source: *Album of photographic views of Sydney, Tronier, ca. 1879-1884, State Library of NSW, PXA 411*)

2.4.1 The Navigation Obelisk at Green Point

The general boom in ship traffic in the harbour in the 1850s, as immigrants flocked to take their chances in the goldfields, necessitated additional navigation aids within the harbour, and the tragedy of the *Dunbar* probably provided a catalyst for these improvements. Green Point had been noted by Bradley in February 1788 as a useful visual aid to navigating past the Sow and Pigs Reef at the entrance to Sydney Harbour (see Figures 2.3 & 2.4). In 1857, Captain Denham and the Officers of the *Herald* prepared a plan for the siting of a number of obelisks, which would provide leading marks to assist in the navigation of channels within the harbour. In November of that year £500 was allocated for four obelisks. In January 1858 the original contractor pulled out of the arrangement, but another, Mr Hugh Murphy proceeded with the work. The stone navigation obelisk on Green Point provided a leading mark for the Eastern Channel to be lined up with the back mark, also still standing, on the

west side of Parsley Bay.⁵³ By the early twentieth century, the 1850s navigation obelisks were seen to be obsolete as new methods were devised to guide ships into the harbour; for example, the entrance to Port Jackson was marked by leading lights on Grotto Point in 1909.⁵⁴

⁵³ Bradley, William, *A Voyage to NSW, 1786 - 1792*, facsimile of original manuscript, Trustees of the Public Library of NSW and Ure Smith Pty Ltd, 1969, p. 78; Stephensen, P. R., *The History and Description of Sydney Harbour*, Rigby Lit., 1966 p. 24; Wilson, G.C., *Sydney Harbour Fortifications*, 1985, pp. 4.20

⁵⁴ Brewis, C W, *Lighting the East Coast of Australia: Cape Morton to Gabo Island (including the coast of NSW)*, 1913, cited in Thorp, W., *Archival Report, Hornby Lighthouse and Associated Structures*, 1983, p. 15-16

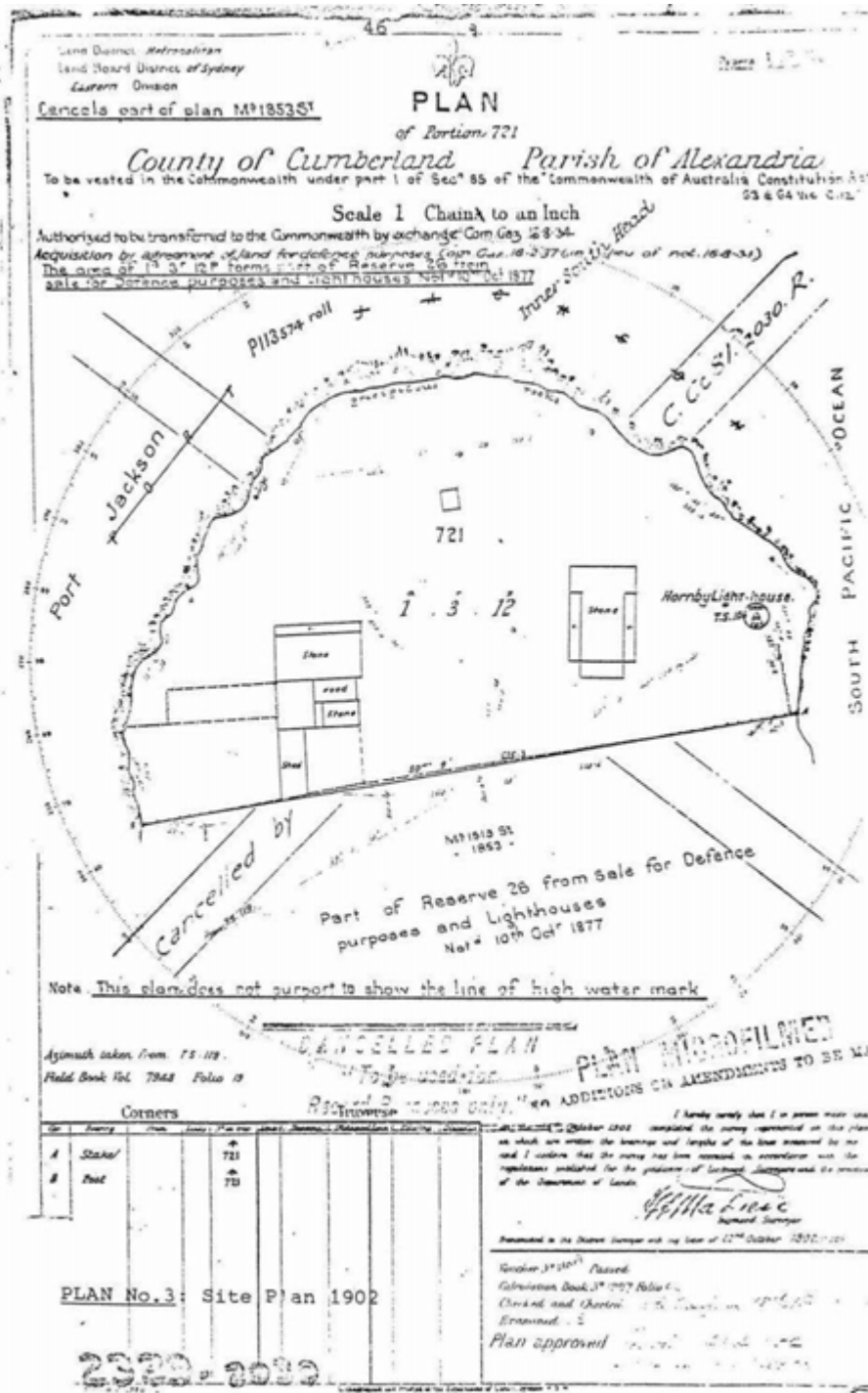


Figure 2.9. Site plan of the Hornby Light Station 1902 (Source: Sheedy, David, Head Lightkeeper's Cottage, Hornby Light, Inner South Head, Port Jackson, NSW, prepared for the NPWS, May 1998)

2.5 ‘Keep ‘em out’: South Head in Sydney’s outer line of defence

South Head was recognised early in the nineteenth century as a strategic location for harbour defence, and the Colony’s tactical minds began to imagine gun emplacements wreathing the headland. It was only in the second half of the nineteenth century that the means and the political will were found to commence the first construction project. With the harbour defence strategy vacillating between an inner and outer line of harbour defence, however, this project was not completed. By the 1870s, the outer line of defence had won out. The construction of batteries and the associated military accommodation and administration buildings ensured a permanent military presence at South Head, which intensified over the following decades and peaked at the turn of the century. The harbour defences did not play an important role in WWI, and defence spending ground to a halt in the interwar period (the 1920s and 30s). Activities re-intensified with WWII, as it became apparent that Sydney Harbour was this time under direct threat. Following WWII, a greater emphasis was placed on military accommodation and training at South Head. The fixed batteries were decommissioned, being no longer an effective form of defence.

2.5.1 The first sixty years

Between 1788 and 1845, the perceived threat to the Colony of NSW was a sudden raid from the sea, coming into the harbour and holding Sydney to contribution. The first defences of the colony were closely grouped around the small settlement. The earliest fortification, which was completed in November 1788, was sited near today’s Macquarie Place. Dawes Point was fortified in 1791 when news came that England and France were at war. Bennelong Point, Windmill Hill and Garden Island were also fortified in the 1790s.⁵⁵

The Colony began to look further out into the harbour for defence on the turn of the nineteenth century, spurred on by news of renewed war with France. A battery was constructed at Georges Head/Obelisk Head, completed and manned in 1801. This remained the most forward battery in Sydney’s defences until the mid 1850s.⁵⁶

The value of Inner South Head (the northernmost portion of the peninsula, beyond Watsons Bay and encompassing the greater part of the study area) in the defence of Sydney was

⁵⁵ Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 6, 7; GC Wilson, G.C., *Sydney Harbour Fortifications*, 1985, p. 1.3

⁵⁶ Oppenheim, Peter. *The Fragile Forts*, 2004, p. 10-12; Wilson, G.C., *Sydney Harbour Fortifications*, 1985, p. 1.3

remarked upon as early as 1806, with Governor King reporting, 'In order to fortify the harbour with effect, it would be necessary to have a battery of twelve 8-pounders in the Inner South Head, one side to face the east'.⁵⁷ Governor Macquarie also recognised the importance of South Head as a strategic site for the defence of the harbour, and his improved road to South Head was built partly with this in mind. The construction of the Macquarie Lighthouse on Outer South Head in 1818 saw the provision of a guard house and barrack, and the stationing of a small military detachment. The potential importance of South Head as a fortified defence site was again noted by Commissioner Bigge. He instructed Majors James Taylor and Thomas Bell to prepare memoranda on the defence of the colony against an invasion. These reports recommended batteries on Inner South Head, and North Head. In a letter to Francis Greenway dated 7th February 1820, Bigge included a battery at South Head on a list of works he considered to be appropriate for the colony.⁵⁸

In addition to the traditional enemy of the British, the French, the Colony became increasingly nervous as tension built between America and Britain. The unannounced arrival of two American men-of-war, the *Peacock* and the *Vincennes* on 30th November 1839, caused panic in Sydney. Three hundred pounds had been allocated for defence works in April 1839, with no specific programme in mind. This money and two hundred surplus convicts were quickly put to work in the construction of fortifications on Bradleys Head and Pinchgut Island (now Fort Denison). But the works were suspended in 1842.⁵⁹

Public and official debate raged about the defence of Sydney through the 1840s. There were repeated reports of a powerful French squadron roaming the Pacific, and an American fleet of ten sail doing likewise. Letters to the *Sydney Morning Herald* described Sydney as totally defenceless, Fort Macquarie as a 'useless toy', and poured scorn on the ability of the NSW military to even trim a fuse to the right length let alone fire a gun to defend the colony.⁶⁰

In 1848 Lieutenant-Colonel Gordon, commander of the Royal Engineers in New South Wales, prepared a detailed report on a defence scheme for Sydney Harbour. He

⁵⁷ Governor King, 'Present State of His Majesty's settlements', August 12th 1806, quoted by: Oppenheim, Peter. *The Fragile Forts*, 2004, p. 12-13

⁵⁸ Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 6-7, 20-1; Jervis, James, *The History of Woollahra*. c1960-65, p. 15

⁵⁹ Wilson, G.C., *Sydney Harbour Fortifications*, 1985, p. 1.3

⁶⁰ Oppenheim, Peter. *The Fragile Forts*, 2004, p. 33-35

recommended batteries at Inner South Head and Middle Head, with a casemated tower on the Sow and Pigs reef (see map of defences, Figure 2.11). The scheme was to be made failsafe by the completion of the battery at Dawes Point and the construction of a tower for heavy guns on Pinchgut Island (now Fort Denison). The sites at Inner South Head and Middle Head were both to mount 30 heavy guns (with 15 mounted as soon as possible, and the rest to follow), and have barrack accommodation for 150 officers and men, stores, magazines and water tanks. Both were to be cut off from the ground behind with ditches and ramparts. He also mooted the idea of a boom across the navigable channels, but acknowledged that this would stifle maritime commerce. Gordon's recommendations were not enacted at the time, but did form the basis for the defence programme of the mid-1850s, discussed below.⁶¹

2.5.2 South Head fortified

Political unrest in Europe leading up to the Crimean War prompted an inquiry into the state of defence of Sydney, by a Select Committee set up in 1853. When the French established a colony in New Caledonia in November 1853, local press agitated for immediate measures to be taken in regard to Sydney's defence. The Select Committee, headed by Colonel George Barney, took Gordon's plan of the late 1840s as a point of departure, partly to save time. Work commenced at Middle Head and was progressing slowly until news of the war with Russia reached Sydney in June 1854 (after three months in transit) and gave a renewed sense of urgency to the project. Work commenced on South Head in October 1854. The tip of South Head was first cleared of vegetation, and then construction of the battery began. A road appears to have been built to the gun pits, leading from Watsons Bay at Cliff Street. The southern part of this road appears to have followed the line of the present road that enters HMAS Watson. Its course as it approached the gun pits is unknown, but probably followed the line of the present road to the Hornby Light, and was most likely unsealed. Military work parties undertook the construction, and were accommodated in pre-fabricated iron buildings near the work site. An appeal to the British Administration for help in defending Sydney yielded twenty 32-pounder guns and twenty 42-pounder guns, but a military detachment for helping construct the defences was refused. Concern about a potential Russian invasion prompted the launching of the first warship built in NSW (and possibly Australia), the HM Colonial Ketch *Spitfire*, in 1855.⁶²

⁶¹ Oppenheim, Peter. *The Fragile Forts*, 2004, p. 41-3

⁶² Wilson, G.C., *Sydney Harbour Fortifications*, 1985, p. 1.4; McNamara Soder Associates, *Officers' Mess, Gap Bluff*, 1989, p. 7; Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 47-49, 325; Gojak, Dennis, *Site notes South Head c1985*, courtesy NPWS, n/p

The battery commenced at South Head in 1853–54 was more ambitious than those that had been constructed at Georges Head and Bradleys Head in 1801 and 1839–42 respectively. These earlier fortifications consist of a level terreplein excavated from the rock, with a protective parapet located on the seaward side. This was the easiest and cheapest form of fortification to construct, and was well suited to the type of armaments available to the Colony. In Britain, this had been the standard form of fortification since the time of Henry VIII, and as warfare had not changed substantially, this design was equally as suitable in Sydney in 1839 as it was in 1801. The battery at South Head, however, was designed as a rampart on which guns were to be mounted, flanked on either side by four circular bastions each mounting one gun. This was to form part of a larger enclosed work mounting six guns. Circular bastions had been in use for some time in Britain, but their use on South Head in the 1850s was the first time they appeared in NSW. The design was not a radical departure from the parapet design, rather a reworking of the same concept. The Middle Head battery, contemporary with that at South Head, adhered to the parapet design of Sydney's earlier fortifications.⁶³

Governor Denison ordered a halt to the works in March 1855 by which time only two of the planned gun pits/bastions and part of the adjoining rampart had been completed to the extent that they could be used in an emergency. The strategic reason for withdrawing defence spending from South Head and Middle Head was a return to an inner line of defence for the harbour, partly because the outer line had lost strategic effectiveness in the face of steam powered warships which could run between the batteries at night. Denison's other reason was economic. The works at South Head and Middle Head saw an astronomical rise in cost when free labour had to be factored in. The cost of works was re-estimated at £46,749 for each installation. The two completed gun pits were possibly armed as reserve batteries, but if that is the case, they were demounted in 1857 when part of the incomplete battery site was taken over for the construction of the Hornby Light. The Hornby Light sits in one of the gun pits. The other, right on the tip of the headland, remains (see Figure 2.13). No physical evidence of the rampart has been found.⁶⁴

⁶³ Wilson, G.C., *Sydney Harbour Fortifications*, 1985, p. 1.8

⁶⁴ Wilson, G.C., *Sydney Harbour Fortifications*, 1985, pp. 1.4, 1.6; Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 47-9, 325; McNamara Soder Associates, *Officers' Mess, Gap Bluff*, 1989, p. 7; Gojak, Dennis, *Site notes South Head c1985*, courtesy NPWS, n/p



Figure 2.11. E W Ward, *Plan of portion of Port Jackson to illustrate Report on the Defences (of the City of Sydney)* dated 3rd January, 1863, NLA Map Rm 1401 <http://nla.gov.au/nla.mpa-rm1401>.

2.5.3 The post-Crimean War push: batteries and barracks at South Head

The direction and technology of warfare was transformed by the Crimean War. The development of ironclad warships, and powder and shrapnel shells necessitated more heavily protected coastal fortifications, as well as heavier weapons in more secure emplacements. New ideas for the defence of Sydney included Captain Cole's mid-1860s scheme of 'cupola' towers placed around the harbour, and Gustave Morell's grandiose vision in which the harbour entrance would be blocked with four gigantic stone walls.⁶⁵

The last of the Imperial Troops departed from NSW in 1870. A NSW Defence Committee was set up in September 1870 to assess the defence requirements of Sydney and the coast. The committee recommended construction of batteries on Middle Head, Georges Head, Bradleys Head, Steel Point, and Inner and Outer South Head. They also recommended that

⁶⁵ Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 77-8, 80; Wilson, G.C., *Sydney Harbour Fortifications*, 1985, p. 1.9

a boom be laid from Georges Head to the Sow and Pigs reef, and from the Sow and Pigs reef to Camp Cove, along with two small steam gunboats and lines of mines (called torpedoes) to be laid in the main shipping lanes. The Defence Committee proposed that the South Head Road be continued up to the Hornby Light in order to facilitate transport of stores.⁶⁶ A rumour that an American filibustering expedition was on its way to wreak havoc in Sydney and Melbourne caused the Governor to order the manning of all of Port Jackson's defence sites by all available volunteers and civilians in May 1871. The chaos that ensued prompted the Government's Military and Naval Forces Act of NSW, which allowed the maintenance of permanent military forces in NSW. The NSW Artillery was raised on 1st August 1871, with headquarters at Dawes Point. The event also spurred on the construction of the defence works recommended in the recent review, which otherwise would not have come to fruition.⁶⁷

In comparison to the 'casemate', which was a form of closed battery, open batteries on elevated positions avoided the danger posed by the newly developed explosive shells and thus remained feasible on South Head, and at Sydney's other elevated coastal defence sites. Open batteries had the advantage of being much cheaper to construct than casemates or closed defences. It was this style of fortification that was developed at Inner South Head, partly within the study area, in the 1870s. The proposed system of booms and submarine mine fields did not proceed at this stage.⁶⁸

In 1871–73 a battery mounting five guns, with associated passages and magazines, was constructed on the rise behind the cliffs between Camp Cove and Lady Bay, facing the harbour. It had the complementary function of close defence within the harbour, and was armed with light, quick firing guns. Remains of this battery are now within the area of HMAS Watson. In 1876, a battery of three gun pits was constructed facing the sea just to the south of the Hornby Light tower. The two northern gun emplacements are today within the study area, and the other, along with some of the associated passages are now within HMAS Watson (see Figures 2.12 & 2.15). Two additional gun emplacements were built further south, within the area of HMAS Watson. This sea facing battery formed the main seaward defence until 1889, armed with heavy 9-inch and 10-inch RML guns capable of

⁶⁶ Wilson, G.C., *Sydney Harbour Fortifications*, 1985, pp. 1.4, 1.9; Oppenheim, Peter, *The Fragile Forts*, 2004, pp. 77-8, 80, 90-5, 99

⁶⁷ Oppenheim, Peter. *The Fragile Forts*, 2004, p. 95

⁶⁸ Wilson, G.C., *Sydney Harbour Fortifications*, 1985, pp. 1.6-1.9

sinking ocean-going vessels outside the entrance to the Harbour. The Hornby Battery formed an essential part of an outer line of harbour defence. Forty-one guns were mounted in batteries and defence works along the foreshores of Port Jackson in total.⁶⁹

Tension in Europe in 1876 prompted the NSW Government to seek the assistance of Sir William Jervis who had done much to reorganise the defences of Britain in the late 1860s. He joined Lt Col Peter Scratchley in 1877 to review NSW's coastal defences. Their activities led to the reorganisation of the batteries on Middle Head, Georges Head and South Head, and the development of new works on Green Point (see Figure 2.14) and Georges Heights. Jervis continued to advise the NSW Government until 1885.⁷⁰

Jervis and Scratchley firmly believed in the outer line of defence, in which the strategically located South Head was a vital component. Jervis stated:

I am of the opinion that, with well-constructed, well armed, and properly manned batteries of a few heavy guns at Middle Head, Georges Head, and South Head, acting in conjunction with torpedoes laid across the entrance to the harbour, there is no necessity for inner defence.⁷¹

Although the pair agreed with the general siting of the batteries at South Head and elsewhere, they did have criticisms. The three 10-inch guns at on the seaward side of South Head (placed in the southern three of the five gun pits) were judged to be amongst the few well-sited powerful guns in Port Jackson. However the guns and gun crews, as on the other headland placements, were very exposed and could easily be picked off as silhouettes against the sky from the water. Heavier guns were adopted on the recommendation of Jervis and Scratchley at South Head, Georges Heights and Outer Middle Head, and their recommendations concerning the construction of barracks at South Head were adopted. Cliff Cottage and the Artillery Barracks (both within the area of the present HMAS Watson) were built adjacent to the 1850s road leading to the tip of the headland, the Hornby Road.⁷²

⁶⁹ Wilson, G.C., Sydney Harbour Fortifications, 1985, pp. 1.6-1.9; Oppenheim, 2004, pp. 90-5, 99, 105; Historic Heritage Maintenance Programme, NPWS, onsite interpretation; Gojak, Dennis, Site notes South Head c1985, courtesy NPWS, n/p; McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, p. 7

⁷⁰ Wilson, G.C., Sydney Harbour Fortifications, 1985, p. 1.4

⁷¹ Oppenheim, Peter. *The Fragile Forts*, 2004, p. 110

⁷² Oppenheim, Peter. *The Fragile Forts*, 2004, p. 110, 113; Wilson, G.C., Sydney Harbour Fortifications, 1985, p. 1.6, 1.7, 1.9; Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p

A second road was also constructed in the late 1870s or early 1880s, leading from the landing area at Camp Cove, adjacent to the old Water Police Station, and joining up with the Hornby Road after running along the cliff tops between Camp Cove and Lady Bay. Its primary purpose was the transport of stores and ordinance from the landing at Camp Cove to the military sites at Inner South Head. This road was paved with sandstone and provided with drainage as it ascended the steep slope from Camp Cove. This section of the road survives within the study area and is known as the Cobblestone Road. In the 1890s, the Camp Cove landing was supplemented with a jetty and boat shed for military use. These facilities were overlooked by a single gun emplacement on the cliff top adjacent to the Cobblestone Road, constructed prior to 1890, and a complex of rifle walls. Other tracks and roads were probably constructed at this time linking the major facilities within the area of the present HMAS Watson, and may have been formalised as the facilities were extended in the early 1900s. By 1890, a complex of ditches, rifle walls and moats had been constructed to protect the batteries from being overtaken from behind, most of them within the area of the present HMAS Watson. The southern part of the Military Reserve on Inner South Head, beyond the batteries and earth fortifications, was not developed, and retained much of its original vegetation cover through the 1880s and 1890s.⁷³

A complex of complementary defence activities and facilities was developed at Green Point from the 1870s (see Figure 2.14). Some time between 1872 and 1885, a battery was constructed at Green Point, but little is known about it, and no physical remains of it have been identified. In 1878 a Submarine Miners Firing Station was built into the hillside at Green Point, consisting of a long access passage, two main rooms, and a passage leading into the harbour, to take out the electrical cable.⁷⁴ Two viewing ports allowed full views across to Middle Head. A minefield was installed across the shipping channels, and a similar firing station was built on the other side of the harbour at Georges Head. Jervois' idea was that '...an enemy's ship would first have to pass the electro-contact mines, then the mines fired by observation [from Green Point and Georges Head], he being at all times exposed to the converging fire of the batteries on Middle Head, South Head and Georges Head.'⁷⁵

⁷³ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p; McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, p. 7

⁷⁴ There is speculation that this passageway leading to the harbour, associated with the Submarine Miners Firing Station, was in fact the c1940s indicator loop that was associated with the Boom Net. Paul Davies to advise.

⁷⁵ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p; NSW, Legislative Assembly, Defences,

Between 1878 and 1881, a Marine Biological Station was established at Green Point by an eminent Russian naturalist and explorer Baron Nikolai Nikolaevich Miklouho-Maclay. The site of the station was part of the Green Point military reserve gazetted in 1855, but a small parcel was freed by Legislation enacted with the support of Sir John Robertson (lots 5–7 of the 1855 subdivision). The station was completed to Miklouho-Macklay's own designs, and he started work there in 1881, facing the new battery on the far side of Camp Cove.⁷⁶

In 1885 the military decided that the Marine Biological Station buildings were needed for their accommodation, and they were eventually resumed. The first Sands' Directory listing for the building as an army officer's residence occurs in 1899, when it was described as the Green Point Quarters of the NSW Artillery, and it remained in use as officers' quarters at least into the 1990s. The building is outside the study area. Accommodation for military personnel on Green Point also included Officers Quarters, constructed between 1892 and 1903, a simple weatherboard cottage currently known as Green Point Cottage, at 36 Pacific Street.⁷⁷

Accommodation facilities were also expanded with the acquisition of the former Water Police site. The building at 32 Cliff Street, now known as 'Constable's Cottage', was built between 1895 and 1903 as married quarters for Artillery Personnel. Research suggests that the architect was possibly R.E. Paselow. Plans for the building dated 1895 are extant. In 1952 the building was converted into a single residence, by the Commonwealth defence authorities, who pushed doors through the central wall connecting the two original living rooms and bathrooms. A room with a bay window was added to the north, and the existing western verandah extended, and a small, enclosed verandah added to the northern side of the bathrooms.⁷⁸

Preliminary Report by His Excellency, Sir W. Jervois RE, CB, KCMG, 1877, p. 14, cited by Oppenheim, Peter. *The Fragile Forts*, 2004, p. 114

⁷⁶ The Sydney Mail, 14th May 1881, p. 779, cited by Martin, Megan, A Thematic History of Watsons Bay, 1997, p. 75-6; the Woollahara History and Heritage Society advise that the Station was funded by Public Subscription.

⁷⁷ Martin, Megan, A Thematic History of Watsons Bay, 1997, p. 76; Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p

⁷⁸ McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, p. 6; Martin, Megan, 1997, p. 75; Returns of the Colony for 1841, 4/273, p. 186, cited by Martin, Megan, A Thematic History of Watsons Bay, 1997, p. 75; Ayre, Jodi, Statement of Heritage Impact, Cliff Street, Watsons Bay. Proposed road reconstruction and drainage improvement works, March 2006, p. 6; Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p

Throughout the 1880s and 1890s, Port Jackson's batteries were updated with newly developed searchlights and beam lights; telephone connections between the observation stations at the battery sites and Victoria Barracks; Depression Range Finder (DRF) and Depression Position Finder (DPF) technology to locate targets; and new types of guns including the 'disappearing gun' on a hydro-pneumatic (HP) carriage, and the 'quick firing' guns in the 1890s. A small battery was constructed at Green Point after 1892, perhaps using the previous battery on the point. No physical remains of it have been identified. The footings of Electric Light Station No. 4 (aka Searchlight No. 4), also constructed at Green Point prior to 1903, survive adjacent to the navigation obelisk; it is likely that this site incorporated the Winch House for the World War Two Anti-Submarine and Torpedo Boom Net.

By 1903 the Bradleys Head fort was disused, and the most important sites for the defence of Port Jackson were Georges Heights, Middle Head and South Head. At South Head, however, the Hornby Battery adjacent to the Hornby Light, facing the sea, was superseded in 1904 by a new sea-facing battery within today's HMAS Watson. Australia was armed to the hilt, with a total of 162 guns, the largest number mounted in Australia during the twentieth century. By 1911, however, the armament of the Sydney coast defences had been drastically reduced, and consisted of only twenty guns mounted in six locations. Eight of the twenty were mounted at South Head, and a further three were to be installed there.⁷⁹

⁷⁹ Wilson, G.C., *Sydney Harbour Fortifications*, 1985, pp. 1.5, 1.10; Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p; Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 193, 198

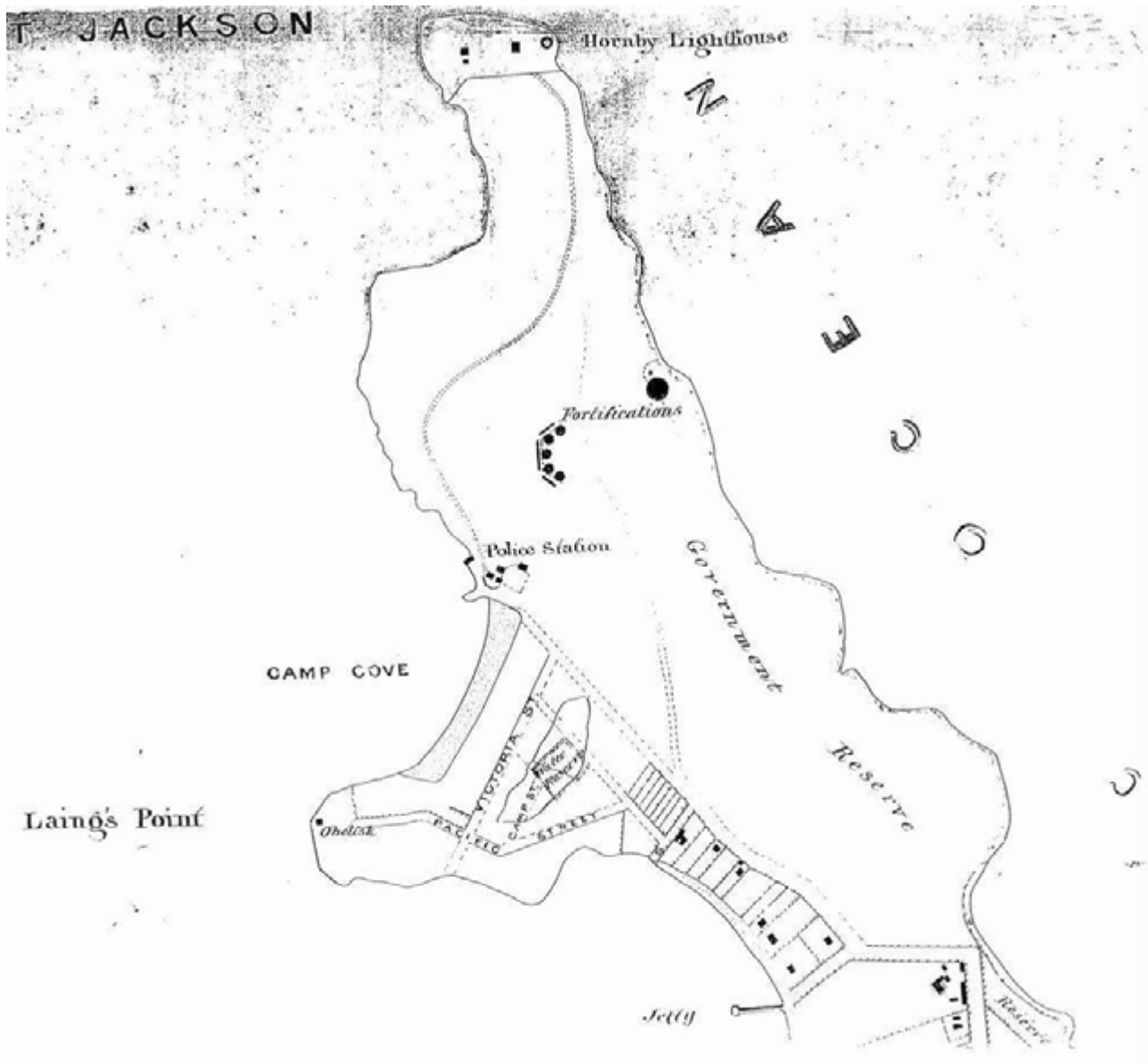


Figure 2.12. Part of Map of Vacluse 1875, showing the harbour facing battery (constructed 1871-1873) to the north of Camp Cove, and also the Water Police station. (Source: Sheedy, David, Head Lightkeeper's Cottage, Hornby Light, Inner South Head, Port Jackson, NSW, prepared for the NPWS, May 1998, M3)

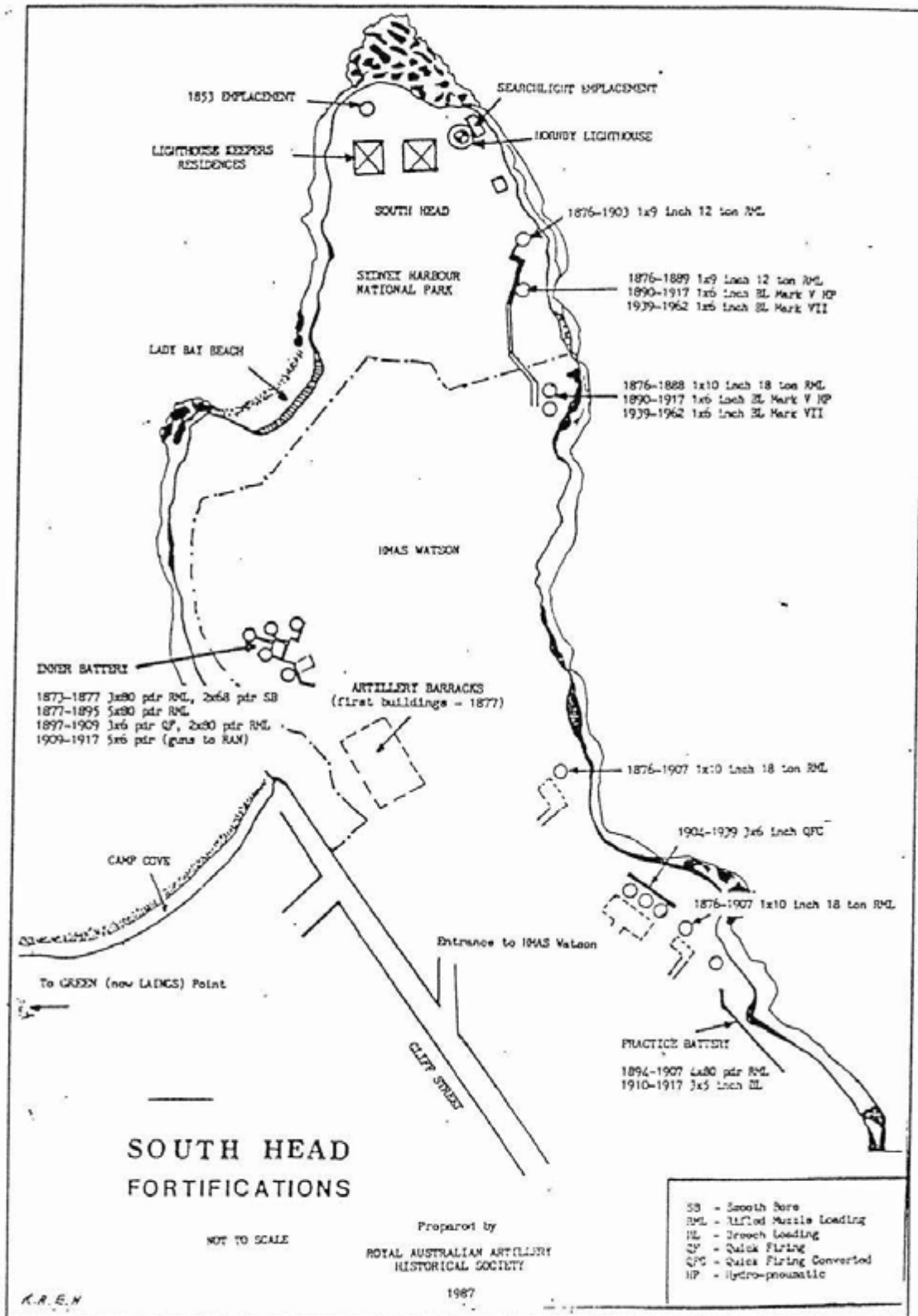


Figure 2.13. Plan of the South Head Fortifications drawn by Major Roy Harvey for the Royal Australian Artillery Historical Society, 1990, showing the various batteries of the South Head Fort, and indicating when guns were placed at each. (Source: Ayre, Jodi, Statement of Heritage Impact, Cliff Street, Watsons Bay. Proposed road reconstruction and drainage improvement works, March 2006, n/p)



Figure 2.14. View across the rifle walls guarding the Cobblestone Road and delivery landing, Kerry and Co., n/d but probably c.1885–1895, showing the Marine Biological Station at centre. (Source: State Library of NSW, Small Pictures File, SPF/810)



Figure 2.15. View of the South Head Fort c 1900–1910 (Hornby Battery), probably taken from inside the Hornby Light Tower, and showing the two gun emplacements (constructed 1876) inside the study area, and trench or moat to the rear of them on the right hand side of the photograph (see map above). It is possible that the smoke obscures the 6-inch HP ‘disappearing gun’. The 9-inch RML is in the foreground. (Source: State Library of NSW, Star Photo Co. - Unmounted views of NSW, [chiefly 1900–1910] PXE 711/23)

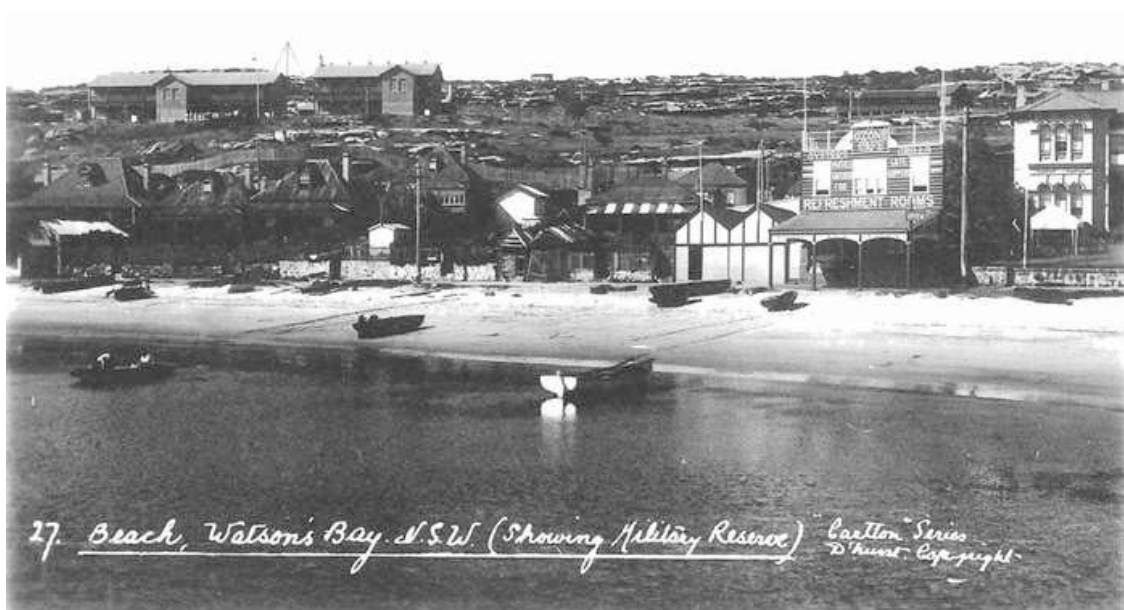


Figure 2.16. Photograph of Watsons Bay showing the civilian landscape in the foreground, and Military Reserve in the background. The buildings depicted were in the area of the present HMAS Watson. (Source: Cassidy, Goddard, Lawrence, May and Poland, *Impressions of Woollahra. Past and Present*, Allen and Unwin, Sydney, 1988, p. 77)



Figure 2.17. Camp Cove, Watsons Bay, c. 1880, showing the military boathouse and jetty area at the north end of Camp Cove, a fence possibly running along the line of the Cobblestone Road, and the stone rifle walls covering the jetty area. (Source: State Library of NSW, Small Pictures File, SPF/811)

2.5.4 *WWI: a front far from home*

On notification of the imminent opening of hostilities against Germany in August 1914, Sydney's fixed defences were manned. The 1904 battery at South Head was appointed as the examination battery for the port of Sydney. But the war did not threaten Australia, and only skeleton units were maintained at Sydney garrisons, with the coastal defence troops gradually transferred to other units, making their way to the fronts. The Citizen Garrison Artillery and Engineers were responsible for manning Sydney's coastal defences on those occasions where defence was deemed necessary, such as the period in early 1916 when a German raider was supposed to be in nearby waters, and in April 1918 after the activities of the German raiders *Wolf* and *Seeadler* became known. At the Sydney defences, boredom was a major problem, and means of entertainment such as music and gardening were introduced to help overcome the resulting discipline problems.⁸⁰

2.5.5 *Scientific Warfare and the School of Artillery/Gunnery at Gap Bluff*

A School of Artillery/Gunnery was begun at Middle Head in 1885, under Major E.G.H. Bingham. The school ran courses in moving, mounting and dismounting guns, following similar developments in the formalisation of artillery training in Britain. Warfare was becoming more scientific, and it had become clear that Coastal Artillery in NSW was not keeping pace with developments in technology overseas. Locally, the results of a lack of training in relocating guns had been observed in the early 1870s. Over a period of three months, heavy artillery was transported to the new batteries at South Head, Middle Head and Georges Head by a force of 250 soldiers who fell victim to 'broken and twisted limbs, sprains and flesh wounds' in large numbers.⁸¹

The Middle Head School of Artillery/Gunnery was relocated to South Head in 1894–95 (see Figures 2.18, 2.19, 2.20 & 2.21). South Head appears to have been selected due to its proximity to Victoria Barracks. It also had an uninterrupted firing range over the Tasman Sea, unlike Middle Head, and thus training exercises would pose little danger to shipping activities within the harbour. It was also close to hospitals. Although this last reason for its location remained unstated, a number of accidents on the North Shore during the 1880s had emphasised the importance of easy access to medical attention. A practice battery was mounted on the seaward side of South Head, at Gap Bluff, in 1894. A workshop, serving the

⁸⁰ Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 193, 198-200

⁸¹ Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 97, 137; McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, p. 7-8

practice battery and connected to it by a path from the northern side of the building, may also have been constructed at this time (the former workshop, referred to below as the Battery/Artillery Workshop, was comprehensively altered and is now used as a residential cottage for National Parks staff). The Gap Bluff facility seems to have been used for practical demonstrations, with formal teaching undertaken at Victoria Barracks. In 1901, one of the training activities was the relocation of the 9-inch cannon, which now sits above Camp Cove from its previous location near the Hornby Light. This gun was one of six brought to NSW from the Royal Gun Factory in England in 1872. Of the other five, two were placed at Bare Island, Botany Bay, two at Fort Scratchley near Newcastle, and one used at the Victoria Barrack School of Artillery/Gunnery for training purposes.⁸²

The Battery/Artillery Workshop, constructed between 1895 and 1903, is extant, and is the oldest building remaining on the site. Its original construction, a hardwood frame clad in weatherboard, with Marseille tile roof on a sandstone plinth, is similar to other such buildings designed by the Military Works Branch; a report prepared in 1989 by McNamara Soder and Associates indicates that the design may be attributable to Lt Col F.R. de Wolski, Director of the Military Works Branch. Similar structures are located at Chowder Bay and Green Point. The Chowder Bay examples suggest a standard design formulated by de Wolski in 1889–91.⁸³

Changes to the scheme of Australia's Defence flowing from Federation, and the institution of compulsory military service on Lord Kitchener's recommendation, saw a dramatic increase in the number of people undergoing military training. More extensive training facilities were planned at Gap Bluff School of Artillery/Gunnery in 1912. The new school consisted of two double-storey blocks with associated offices and latrine, the latrine still being extant. All of this development took place within the largely undeveloped southern part of the Inner South Head defence reserve.⁸⁴ The School of Artillery/Gunnery ran courses at South Head until the outbreak of WWII. The next section gives an account of building works at the Gap Bluff site in the late 1930s.

⁸² McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, p. 7-8; Historic Heritage Maintenance Programme, NPWS, onsite interpretation

⁸³ McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, p. 13

⁸⁴ McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, p. 8-9



Figure 2.18. A 12 ton gun being moved at the NSW School of Artillery/Gunnery at South Head, 1895, showing the main barrack block in the background (Source: Australian War Memorial, id. P00991.059)



Figure 2.19. Members of a three month course at the School of Artillery/Gunnery, South Head 1910 moving a 6-inch gun in the gun park in front of the Officers' Mess (Source: Australian War Memorial, id. P00991.105)



Figure 2.20. Members of a long course at the School of Artillery/Gunnery floating a field gun on a raft at Camp Cove, 1898 (Source: Australian War Memorial, id. P00991.072)



Figure 2.21. Members of a short course at the School of Artillery/Gunnery hauling a 6-inch gun up the slope to the north of Camp Cove, 1910 (Source: Australian War Memorial, id P00991.104)

2.5.6 Defence activities between the wars

South Head continued to be dominated by defence and military training during the interwar years. Although there was little improvement of the defence and training facilities during the 1920s, Gap Bluff, Inner South Head and Green Point remained under military control that excluded other uses. When Hornby Light was automated in 1933, the Lightkeepers' Cottages were also taken over by the military, for use as staff quarters.

After World War One, the nature of the threat to Australia began to change rapidly. The Royal Navy no longer dominated the Pacific Ocean, and the Japanese had been handed a string of strategically located islands across the Pacific, seized from Germany during 1914. As the 1930s progressed, the Japanese began to fortify these islands and turned them into major bases, bringing a potential threat, larger than had been previously conceived and much closer. The development of submarines and aircraft as vehicles of war faced Sydney's defences with new challenges. In the late 1920s and early 1930s the suggestion of aircraft to replace or augment the coastal artillery was made more than once by members of the Royal Air Force and Royal Australian Air Force. These suggestions were strongly opposed by the Army. The increasing amounts of air traffic in the early 1930s prompted the formation of a committee to prepare regulations and restrictions about flying over Australian territories. Areas in NSW that were gazetted as prohibited areas included Inner South Head: the area north of the line joining Jacob's Ladder to Watsons Bay, including all of the study area.⁸⁵

Following WWI the Australian government was not keen to spend money on defence, and neither was the public. The British forces at Singapore seemed to provide enough assurance against attack by the rapidly strengthening Japanese forces. By 1927 the coastal Artillery of Australia had been reduced to their smallest number since Federation. South Head was one of the few locations where active weapons were maintained for most of the period. A 1925 report recorded the armament at Inner South Head as 'nil', but noted the presence of a number of searchlights within the study area, at Inner South Head, Gap Bluff, Hornby Point and Green Point. Many of the guns put in place around Sydney in 1901 were now obsolete and had been taken out of service. Only 37 'modern' guns were in service in 1927, and that included several dating from the 1890s. The economic Depression of the 1930s kept defence spending low until the middle of the decade. Construction was also

⁸⁵ Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 2, 207-10, 212-13, 236

almost non-existent at the Gap Bluff School of Artillery/Gunnery throughout the 1920s. Following WWI, compulsory military service was maintained at a lower level until it was discontinued in 1929.⁸⁶

In the mid-1930s, however, as the economy began to emerge from the Depression and fascism grew increasingly ominous in Europe, a military spending programme was set in train to modernise the armed services and increase their strength. The major project pre-WWII was the fortification of North Head. In the years leading up to WWII, the dates and times of all artillery practice were published in the daily newspapers. Floating targets were used for practice, and illuminated floating targets at night. When the guns at Middle Head were fired windows rattled in Vaucluse, and practice firing at South Head rattled the windows of houses from Manly to Neutral Bay.⁸⁷

At the School of Artillery/Gunnery at Gap Bluff, a new wing was added to the southern barrack; and further additions were made to the northern block in 1935–36. Approval was given in 1935 for the construction of an Officers' Mess, attached to the School of Artillery. Work on this structure was carried out in 1936. Shortly afterwards a garage was added to its eastern side. Further additions were made to the School of Artillery/Gunnery in 1938–39, including a store building/Armoury comprising instruction rooms as well as rooms for storage. The practice battery at Gap Bluff, however, was dismantled in 1938.⁸⁸

Hornby Light was electrified in 1933. This meant that the Light was not manned by lighthouse staff, which obviated the need for lightkeepers to be quartered in the Head and Assistant Lightkeepers' cottages. The Department of Defence acquired the lightkeepers' cottages at South Head after the Hornby Light was electrified, although it appears that private tenants (civilians) leased the cottages for some time between 1933 and 1937. This arrangement caused disquiet as it meant that civilians regularly entered the military reserve. A letter dated 8th July 1937 notes that a civilian was occupying one of the lightkeepers cottages attracting civilian visitors through the military reserve. Demolition of the cottages was also discussed at this time because the military was unwilling to bear the

⁸⁶ Wilson, G.C., *Sydney Harbour Fortifications*, 1985, p. 1.11; Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 207-10, 211, 215; McNamara Soder Associates, *Officers' Mess, Gap Bluff*, 1989, p. 9

⁸⁷ McNamara Soder Associates, *Officers' Mess, Gap Bluff*, 1989, p. 9; Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 211, 222, 228

⁸⁸ McNamara Soder Associates, *Officers' Mess, Gap Bluff*, 1989, pp. 9, , 18, 21

cost of sewerage the cottages so that they would be suitable for accommodation; the Marine Board did not object to this proposal.⁸⁹

Just a year later, in 1938, the quartering of military personnel adjacent to the Hornby Battery had become highly desirable, which meant that the proposed demolition of the cottages was halted. Although negotiations dragged on through the war years, it was only in 1947 that the acquisition of the cottages by the Department of Defence was officially declared, a memo of 2nd October 1940 indicates that one of the cottages had been occupied by military personnel for almost a year by that time.

Navigation and defence requirements became incompatible in many locations on South Head as WWII began. During the early years of the war, most of Australia's navigational lights remained lit, but in 1941 coastal lights were brought under the control of the Navy, and were only turned on as required. There was competition for space on strategic headlands at Sydney, Newcastle and Wollongong.⁹⁰

2.5.7 WWII: Sydney Harbour under attack

Australia declared war on Germany in September 1939. This war was to come much closer to Sydney than the 1914–18 war and activities at South Head reflect this. For example, Coastal artillery was given code names, and defensive preparations continued. The 3-pounder guns at Green Point were code named Laing Battery, and the 6-pounder gun at Green Point was known as Laing. The Hornby Battery was also earmarked as a defensive site.

A secret memo of October 1939 determined two sites for Directional Electric Lights (DELs) near to Hornby Battery. The site for one of the proposed DELs, adjacent to Hornby Light, was described as: '...a position on solid rock with plenty of room, about 20 yards north of Hornby Lighthouse and about 150 yards north of No. 2 Gun. This site is about 30 to 40 ft. below the guns. A 270 degrees arc could be obtained if desired. It is an excellent position and there would be no further expense than the cost of emplacement. This site is

⁸⁹ Graham Brooks and Associates, Conservation Management and Cultural Tourism Plan, 2001, p. 38; Sheedy, *Head Lightkeeper's Cottage*, 1998, p. 7-11

⁹⁰ Graham Brooks and Associates, Conservation Management and Cultural Tourism Plan, 2001, p. 38; Sheedy, *Head Lightkeeper's Cottage*, 1998, p. 7-11

recommended for the second light'. The works to build the structure were estimated at £250.⁹¹

On 28th October 1940 the German armed merchant cruiser *Pinquin* laid a minefield between Sydney and Newcastle. The *Nimbin*, a trawler, was sunk by a mine from this field in November, and the following year another trawler, the *Millimumul*, was sunk by a mine near Broken Bay. Although Japan and Australia were still at peace in 1940, and war in the Pacific would not break out for another year, a secret report of December 1940 examined in detail the options and possible scenarios of Japanese attack on coastal NSW. It concluded that Sydney's fixed defence batteries, including that at South Head were inadequate, and that little 'reliance should be placed upon them, in their present condition, as major weapons of defence'.⁹²

After 1941, the School of Artillery/Gunnery was relocated back to Middle Head, the site at Gap Bluff being seen as too close to potential active combat. The Gap Bluff complex was taken over by the Army and functioned to support the defence activities at South Head. The Officers' Mess continued to be used in that capacity, and the School of Artillery/Gunnery Buildings to the north functioned as administrative blocks and barracks. Two further barrack blocks were constructed at this time flanking the main school buildings to the north and south, as well as a canteen and two miniature ranges. A large garage and separate Motor Transport Office were constructed adjacent to the Officers' Mess, and sleeping quarters were built on its northern side. All of these structures were constructed in weatherboard or asbestos cement. The Navy's Radar Communication Centre was also accommodated in the former school from 1941.⁹³

An Anti-Submarine and Torpedo Boom Net was constructed between Green Point and Georges Head to restrict entry to Sydney Harbour in early 1942 (see Figure 2.22). The boom was 1,480 metres long and constructed of clusters of piles and net made of wire and interlocking steel rings, supported by a series of concrete dolphin piles. It had two openings for the entry of ships and another opening for small craft. The section of the net closest to

⁹¹ There is speculation that this memo does not relate to the existing WWII Searchlight Shelter adjacent to the Hornby Light. Instead, it is suggested that the existing structure was built in 1941. Oppenheim, Peter. *The Fragile Forts*, 2004, p. 239; Memorandum to Staff Officer Engineer Services, 2nd District Base, Paddington NSW, from Major SM Scrivener (?), RE: Hornby 6-inch Mk. VII Battery: DELs, 4th October 1939

⁹² Oppenheim, Peter. *The Fragile Forts*, 2004, p. 243

⁹³ McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, pp. 10, 20; Martin, 1997, p. 76

Green Point was suspended by buoys. All but the very largest of ships used the eastern (Green Point) gate, which was controlled by a boom gate vessel (HMAS Kuramia), and opened by hauling back to a dolphin located off Green Point using winches housed on Green Point adjacent to the navigation obelisk. A 6-pounder Anti-Torpedo Boat gun was mounted at Green Point during 1941, covering the boom. Its location and form are unknown, but it was most likely similar to the corresponding guns covering the net at Obelisk Bay and Georges Head. A three storey, square concrete Observation/Electric Light Tower, 'E.L.S. 17', was also constructed. No remains of the tower are extant, but local tradition states that it was situated in the rock outcrop next to the Officers Quarters.⁹⁴

The war in the Pacific reached crisis point in 1942, and the period of greatest risk to Sydney was the first half of that year. A number of Japanese floatplanes from submarines flew over Sydney in 1942, including one that on 30th May flew low over South Head and the anti-torpedo boom. It was spotted by members of the artillery battery at Georges Head but was mistaken for an American plane. On the night of 31 May 1942, three Japanese midget submarines attempted to enter the harbour. One became entangled in the boom net, and the crew destroyed the vessel, but the other two penetrated the net. Submarines also fired from outside the heads at the Woollahra area. Newspaper reportage attributed a major role to the coastal defences in repulsing the submarine attacks. However, Oppenheim finds that, although the submarines' entries to the harbour were observed on the Indicator Loop System and recorded by the staff at South Head, no action was taken.⁹⁵

The Pacific crisis had faded by mid-1944 and the manning of Sydney's coastal artillery was reduced to a partial Voluntary Defence Corps basis. Work commenced on dismantling the boom net in August 1945 and by early 1946 all but the large dolphins had been removed.⁹⁶

⁹⁴ Onsite interpretation - "WWII Anti-Torpedo Boom", Woollahra History and Heritage Society Inc., October 1995, Australia Remembers 1945-1995 Program; Oppenheim, Peter. *The Fragile Forts*, 2004, p. 262, 272, 273; Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p

⁹⁵ Oppenheim, Peter. *The Fragile Forts*, 2004, p. 267-71; Onsite interpretation - Woollahra History and Heritage Society Inc., 1995

⁹⁶ Oppenheim, Peter. *The Fragile Forts*, 2004, p. 286; Onsite interpretation - Woollahra History and Heritage Society Inc., 1995



Figure 2.22. The Sydney Boom Defences Looking towards Green Point from Georges Head, 1942. (Source: The Australian War Memorial, id. P03338.005)

2.5.8 South Head outmoded

After WWII, the role of South Head in the defence of Sydney was outmoded. Fixed artillery was not effective in the style of warfare developing, providing no effective defence against aerial bombardment or rockets. Along with the other coastal batteries, South Head was decommissioned from the 1950s and part of the site was transferred to HMAS Watson. In 1963 Australia's Coastal Artillery was completely disbanded, following the disbanding of the British Coast Artillery in 1956, the annual British Statement of Defence for that year stating that in 'the light of modern weapon developments it is clear that there is no longer any justification for maintaining Coast Artillery. The seaborne threat can be countered more effectively by the Navy and RAF and other types of artillery can, if needed, be used for seaward defence'.⁹⁷

From the 1950s, the defence reserve at South Head was used as a training and barrack establishment. The November 1950 National Service Bill resulted in a sustained expansion

⁹⁷ McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, p. 10; Wilson, G.C., Sydney Harbour Fortifications, 1985, p. 1.5; Oppenheim, Peter. *The Fragile Forts*, 2004, p. 292-3

of military depots and camps. The Army-held section of the South Head Military reserve at Gap Bluff was appropriated for National Servicemen. Thirteen barrack and service blocks were constructed on the western side of the reserve, overlooking Camp Cove (now within the area of HMAS Watson), and additions and alterations were made to several of the former School of Artillery/Gunnery buildings. The Store/Armoury (also referred to as the former workshop), constructed in c1895 to serve the practice battery on Gap Bluff, was extended to function as a Quartermaster's store. The Barrack Latrine was upgraded with the sewerage of the area some time prior to 1950. It now contains high-level cistern flush toilets. In 1955 the original asbestos cement parapet roof of the Officers' Mess was reconstructed as a pitched roof with Marseilles tiles and overhanging eaves. This was likely to have been in response to problems of leakage and flooding inherent in the original, fashionably functionalist design. Following the cessation of compulsory National Service in 1959, the complex functioned as a transit depot for officers and military serving overseas, and in the period 1965–72 as a transit depot for those leaving for service in Vietnam.⁹⁸

2.5.9 HMAS Watson

HMAS Watson grew from the Naval Radar Communications Centre established at South Head in the early years of WWII. The installation was greatly enlarged over the following years, and commissioned in 1945. Its name was derived both from its location near Watsons Bay, and was also a tribute to the Scottish physicist, Sir Robert Watson-Watt who was an innovator in the development of aircraft radio location and the radar. The Radar Training School moved to the site from Rushcutters Bay in the 1950s, and the Navy's occupation of the site continued to expand after the decommissioning of the South Head Fort, discussed below. Today HMAS Watson is an important Navy training facility, catering for students ranging from officers preparing for command of a major fleet unit through to sailors just having completed their recruit training.⁹⁹ HMAS Watson presently occupies the centre of the headland, separating the Gap Bluff and Hornby areas, with a small connecting strip for public access along the top of the harbour side cliffs. Many of the remains of the fortifications, and surviving accommodation and administration facilities associated with defence activities on the headland from the 1870s to the end of WWII are located within the area of HMAS Watson (see Figure 2.13).

⁹⁸ Wilson, G.C., *Sydney Harbour Fortifications*, 1985, p. 1.5; McNamara Soder Associates, *Officers' Mess, Gap Bluff*, 1989, pp. 10, 16. Compulsory National Service was introduced in 1951, and terminated in 1959. Compulsory selective National Service was reintroduced in 1965 and terminated in 1972.

⁹⁹ Martin, Megan, *A Thematic History of Watsons Bay*, 1997, p. 76

2.6 Leisure and culture at South Head: clean air and wild scenery

The harbour vistas offered by the South Head peninsula and the sense of escape appealed to day-trippers from the beginning of the nineteenth century. From the 1790s colonists walked out to the headland to look for ships, and as life became more comfortable in the Colony, picnickers were attracted to South Head. Access was gained via the first road cleared to the signal station in 1803, or by water. The construction of the Old South Head Road in 1811, which was more suitable for carriages, opened up the peninsula as a popular picnicking, driving and horse-riding destination (see Figure 2.25). Leisure on the peninsula in the latter part of the nineteenth century became increasingly formalised and restricted, as many of the favourite leisure areas were subdivided and built upon. Public parks and private resorts were developed to provide leisure facilities on and around South Head. The defence and lighthouse reserve, which took in the study area, was closed to the public until the 1950s, but was occasionally opened for special events (see Figures 2.7 & 2.27).¹⁰⁰

The dramatic scenery of the peninsula itself, and evocative views back across the harbour to the settlement at Sydney Cove, inspired a large number of drawings and paintings, by artists including Joseph Lycett, Augustus Earle, John Hardwick, S.T. Gill, Jacob Janssen, Eugene von Guérard, Conrad Martens and Charles Rodius, particularly from the early 1850s (see Figures 2.2, 2.6, 2.23 & 2.24).

2.6.1 Land grants on the South Head peninsula

The first land grants in the vicinity of Watsons Bay were made in 1793: Edward Laing, Surgeon in the NSW Corps, was granted '20 acres on the south side of the harbour at Camp Cove' (see Figure 2.5). His grant, known as Roddams Farm, included Green Point, at times known as Laings Point. When Laing quit the colony in 1794, Thomas Laycock, quartermaster in the NSW Corps, who had been granted 80 acres outside the study area at Parsley Bay, acquired the land at Green Point along with another grant fronting Watsons Bay. In July 1803 these properties were put up for sale. In the advertisement, it was noted that the better part of Laycock's land had been under cultivation, although it is not known whether this included any of Green Point. The buyer was Sir Henry Brown Hayes, an Irishman from Cork, who had been transported for kidnapping a girl and forcibly marrying her. Hayes spent a considerable amount of money and effort on improving his property, but based himself outside the study area, beside Vacluse Bay, and concentrated his activities

¹⁰⁰ Further research required to discover to what extent the reserve was accessible to the public, until the introduction of a blanket ban on access in the 1930s.

there, building a cottage and outbuildings, clearing and planting fruit trees, and making a road from to his house from the public thoroughfare. Green Point does not appear to have been developed during the first half of the nineteenth century. In 1854, a syndicate known as the Sydney and Melbourne Steam Packet Company purchased, subdivided and attempted to sell 24 acres of land at Watsons Bay and Camp Cove. This included the 20 acres encompassing Green Point that had been granted to Edward Laing. The property was again advertised for sale in 1855, divided into 141 lots. The sales were not a success. The lots making up Green Point were acquired by the Crown, and the land earmarked for military use. Building on the town blocks behind Green Point took place gradually over the next forty years.¹⁰¹

The whole area to the north and east of the present Cliff Street and Military Road was declared a Government reserve for defence and lighthouse purposes on 10th October 1877 (see Figure 2.9, which shows part of this reserve in the vicinity of the Hornby Light in 1902). This was probably a re-confirmation of an existing reservation, which may have been made in association with the defence works of the early 1850s. The formalisation of the reserve, a 'Reservation from Subdivision' in 1877 was perhaps prompted by the increased pressure for land subdivision at this time as well as the reinvigoration of military activities on the peninsula. The Woollahra area became steadily more populous from the 1860s, as a tide of suburbia swept northward from Paddington, taking in Double Bay, Rose Bay and Vaucluse.

Watsons Bay developed into a village proper soon after. In parallel with the intensified military activity within the study area itself, the context of the study area changed dramatically. Road access to the peninsula became steadily easier in the second half of the nineteenth century. The termini of Old South Head and New South Head Roads were joined in the 1840s, giving much better access to the entire peninsula, and linking roads were constructed such as Jersey Road at Point Piper, and Newcastle Street at Rose Bay, constructed by the Cooper family in 1875. By the end of the nineteenth century Inner South Head was no longer a remote government reserve adjacent to a small fishing village, but an active military facility adjacent to a thriving municipality.¹⁰²

¹⁰¹ Return of Lands Granted in NSW from 31st December 1792, to 1st April, 1793', enclosure in Correspondence: Lieut.- Governor Grose to the Right Hon. Henry Dundas, 30th May 1793, Historical Records of Australia, Series 1, Vol. 1, p. 433-8; Morton, Phillip, H., The Vaucluse Estate from 1793 to 1829 and those Connected with it, *RAHS Journal and Proceedings*, Vol. XV, Part VI, Sydney, 1930, pp. 326, 344-45, 351, 363-4, 368-9, 376-77 Martin, Megan, A Thematic History of Watsons Bay, 1997, pp. 34, 76; Jervis, James, *The History of Woollahra*. c1960-65, pp. 10-11, 13; Gojak, Dennis, Site notes South Head c1985, courtesy NPWS, n/p

¹⁰² Jervis, James, *The History of Woollahra*. c1960-65, p. 14-15; Hughes Trueman Ludlow, Heritage Study, 1984

2.6.2 Picnics and vistas, the first half of the nineteenth century

In 1809 a picnic party, including some of Sydney's most eminent individuals, was struck by lightning at South Head. The *Sydney Gazette* recorded the following:

...a genteel pleasure party, at South Head, consisting of 14 Officers and Ladies, experienced one of the most general as well as violent electric shocks that perhaps ever was experienced. The company was preparing to take a cold collation beneath a fig tree; and from the threatening aspect of the weather, intended to make no further delay ... when on a sudden tremendous crash near to where they sat took place, occasioned by an immense ball of fire striking a rock not very distant from the tree and rending it completely; then glancing towards the sea, threw up a prodigious body of water by its immersion ... at the same instant ten of the company were struck down, some to all appearances dead, and others strangely affected by delirium...¹⁰³

In April 1811, Governor Macquarie visited South Head by water for a picnic, and enjoyed the shade of this favoured fig tree.¹⁰⁴

Although the improved road constructed from Sydney to South Head in 1811 was ostensibly intended for the more serious purposes of defence and shipping, the *Sydney Gazette* encouraged subscription to the road by stating that it would be a most popular and fashionable road once it was suitable for carriages. This indeed was to be the case. Peter Cunningham, a visitor to the colony in the 1820s described Old South Head Road as 'the grand equestrian resort', becoming a lively bustle of activity every Sunday. The view of the Pacific from the end of the road at the lighthouse and the views from Bellevue Hill were a highlight, and the sense of 'untamed nature' attracted those who liked to take in the wildflowers and cliffs. Dr John Dunmore Lang wrote that the South Head Road had been a favourite promenade since the road was built to the lighthouse. He emphasised that it wasn't only aristocrats who took the trip, but anyone with some leisure time on their hands.¹⁰⁵ The tip of South Head and Gap Bluff, the largest precincts of the study area, were out beyond the end of the road, and their remoteness and rough terrain perhaps made

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¹⁰³ *Sydney Gazette*, 22 January, 1809, p.2a.

¹⁰⁴ Jervis, James, *The History of Woollahra*. c1960-65, p. 12

¹⁰⁵ *Sydney Gazette*, 25th May 1811, cited by: Jervis, James, *The History of Woollahra*. c1960-65, pp. 71-5

them inaccessible or unappealing to all but the most adventurous of day-trippers. The study area nevertheless entered the view and the imagination of sightseers as the farthest reach of this magnificent peninsula.

New South Head Road was surveyed in 1831–32, but the depth of sand along the route made construction very difficult, and its completion to an acceptable standard took many years. It was necessary to cut a great deal of stone from local quarries to establish secure foundations, and the creeks, gullies and swamps challenged the available bridge building capabilities. The Cooper family assisted in the clearing of the land through Rushcutters Bay, Double Bay and Point Piper once the line of road had been surveyed. A horse bus service began in 1848, running from the city to Darling Point and Double Bay. The new road made a scenic round trip possible. A visitor to Sydney in 1846, Lt Colonel Mundy joined a Sunday throng along the New South Head Road, and came back along Old South Head Road. He found the ‘views of the harbour from the higher points of the road, over the tufted tops of the forest sloping down to its extreme brink, and the glimpses of its glittering waters between the boles of enormous gum-trees... truly beautiful’.¹⁰⁶

As well as the day-trippers, a few of Sydney’s elite built seaside retreats on the peninsula in which to stay for the summer and entertain guests. Elizabeth Macarthur visited the South Head peninsula periodically through the 1840s for a change of air at *Clovelly*, the stone house built by Robert Watson, which was purchased by her nephew Hannibal Macarthur. Elizabeth visited in the summer of 1847 and described the settlement: the pilots and boats crews, the Water Police and a few fishermen. Many were married, and Elizabeth commented on the number of children in the small village, serviced by a schoolmaster and schoolhouse. She also mentioned an inn near the lighthouse for the entertainment of day-trippers, the South Head Hotel (today a private residence at 218 Old South Head Road). Aside from *Clovelly*, a few other ‘marine villas’ dotted the slopes of the peninsula by the 1840s, including *Zandvliet* (also referred to as *Zandoliet*, now Dunbar House) at Watsons Bay, owned by Colonial Treasurer Pieter Laurenz Campbell. Henry Brown Hayes, and later Captain John Piper developed retreat-style properties further to the south at Vaucluse Bay and Point Piper.¹⁰⁷

¹⁰⁶ Hughes Trueman Ludlow, Heritage Study, 1984 Vol 1, pp. 5-6, 24-5

¹⁰⁷ Martin, Megan, A Thematic History of Watsons Bay, 1997, pp. 32-4, 86; Jervis, James, *The History of Woollahra*. c1960-65, p. 13 ; Hughes Trueman Ludlow, Ludlow, Heritage Study, 1984 Vol 1, p. 5



Figure 2.23. Stanley's 'Camp Cove' of 1847 reveals in a painterly portrayal of natural colours and textures of the sandy track and low heath inspired by the vista south across Camp Cove from a viewpoint within the study area, or the area of HMAS Watson. (Source: National Library of Australia. Charles Edward Stanley, 'Camp Cove', 1847 pic-an3068944)



Figure 2.24. S.T. Gill's 1858 watercolour, 'Watsons Bay and North Head from the South Head Road', shows an early horse bus turning down to Watsons Bay, and a well-dressed couple heading back towards Sydney, with a few more day-trippers heading down the road towards South Head. The newly constructed Hornby Light is given a hazy reference on the tip of South Head. (Source: Cassidy, Goddard, Lawrence, May and Poland, *Impressions of Woollahra. Past and Present*, Allen and Unwin, Sydney, 1988, p. 39)

2.6.3 Public parks and private follies

In 1854, a syndicate known as the Sydney and Melbourne Steam Packet Company developed a resort at Watsons Bay. This company had previously tried to subdivide the area. The company erected a wharf and established a ferry service, and opened the Marine Hotel in the building now known as Dunbar House at Watsons Bay in the park (see above, the building was earlier known as *Zandvliet* or *Zandoliet*). In May 1855, a letter appeared in *The Empire* newspaper extolling the virtues of South Head as an economical and healthful escape from Sydney where the ‘purest and best air in the colony’ could be taken. During Easter of that year, a large number of visitors made their way to Watsons Bay by steamer. The NSW Governor, His Excellency Sir William Denison, and his family rode down to South Head on this occasion. In the late 1850s, the Marine Hotel reached a peak of extravagance. Henry Billings, the host, had enclosed a portion of the pier as a ballroom, and created a menagerie known as Billings’ Zoo. The large crowds that flocked to Watsons Bay could also expect to be entertained by a band and games. Billings died in 1862, but his menagerie lived on for several more years. Another tourism initiative at Watsons Bay was launched by Sir John Robertson in 1877. He purchased 12 acres, which had as its major attraction a large cave, with a boarded floor and seats installed. Wine and soft drinks could be purchased from a purpose built weatherboard cottage. The place became known as ‘The Caves’. The simple pleasures of picnicking and fishing at Camp Cove, to the north, were also enjoyed by many (see Figures 2.16, 217 & 2.25).¹⁰⁸

Manly to some extent eclipsed South Head and Watsons Bay as a pleasure resort in the 1860s and 1870s, partly because that resort had the better ferry service, and the popularity of South Head waxed and waned across this period. Travelling to South Head by road could still be a bit of an adventure as heavy rains made Old South Head road almost impassable. By 1870, Old South Head Road had not been metalled past Paddington, although New South Head Road had been ballasted with blue metal as far as Rose Bay.¹⁰⁹

South Head has long been a favoured spot for welcoming or farewelling ships. On 21st January 1868 the *Galatea* arrived in Sydney with the Duke of Edinburgh on board. A news report stated that about 2000 people gathered on South Head, getting there by whatever means they could: horseback, coaches, carriages, drags and carrier’s carts to witness the

¹⁰⁸ Martin, Megan, *A Thematic History of Watsons Bay*, 1997, pp. 34, 76; Jervis, James, *The History of Woollahra*. c1960-65, pp. 10-11, 13, 172; Gojak, Dennis, Site notes South Head c1985, courtesy NPWS, n/p

¹⁰⁹ Jervis, James, *The History of Woollahra*. c1960-65, pp. 13, 74-5

arrival of the ship. Once the ferries arrived, there were 9,000 or 10,000 people present. In August 1908 an enormous crowd assembled at South Head to see the arrival of the American Fleet. Engravings of such scenes show thousands of spectators wandering freely around the Hornby Light Station and amongst the gun emplacements and associated infrastructure in their Sunday best (Figures 2.7 & 2.27). It is not clear whether parts of the defence reserve were customarily open to the public or whether the crowds were only permitted into the reserve for these special events.¹¹⁰

Military activities themselves formed a popular attraction. As part of the hurried preparations for a feared Russian attack in 1885 there were all manner of manoeuvring and artillery activities. One was a trial detonation of a mine floating off Green Point. A large public audience came to watch, and after much suspense the signal was given, but the mine did not explode, leaving the interested public headed for the hotel at Watsons Bay, demoralised and sceptical about the state of Sydney's defences. Another incident that was more exciting than it should have been, occurred in 1887. Major Penrose fired a gun from South Head by remote observation using a new position finder linked to Middle Head by means of a telephone cable laid across the harbour. The trials were for the most part successful. However, one shot, which was supposed to sail over South Head and land in the water off The Gap, fell short and landed rather too close to the spectators.¹¹¹

As a result of defence activities on South Head during the interwar period, it appears that the public were no longer allowed access to the site or encouraged to observe defence activities at close range, even when defence activities were operating at a low level. There was some discussion in Commonwealth Parliament in May 1932 about opening up South Head and Middle Head to amateur fishermen on weekends and holidays, but it was concluded that public access to these fortress areas should not be allowed for safety reasons. North Head, Fort Scratchley, Fort Wallace, Middle Head and Inner South Head were declared prohibited areas in November 1932. At Green Point, however, Vaucluse Council obtained a permissive grant of three acres in 1930, for use as a public reserve.¹¹²

¹¹⁰ Jervis, James, *The History of Woollahra*. c1960-65, p. 14

¹¹¹ Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 136, 143-5

¹¹² Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 212-3; Jervis, c1960-65, p. 172. With regards to discussions in Parliament regarding local access to defence reserve for fishing, Oppenheim cites Australian Parliament, Parliamentary Debates, 12th Parliament, 2nd Session, Volume 139, Senate, Reply to Questions, 24th May 1932, p. 1232.

Transport along the peninsula improved dramatically in the latter decades of the nineteenth century, and many of the places that had once been associated with leisure were subdivided and built upon. A tram service was extended to Rose Bay Wharf in 1898 using overhead electric power, then to Watsons Bay signal station by 1903, and Watsons Bay wharf by 1909. The tram, like the horse buses of the 1870s and 1880s, made commuting to Sydney possible. The population of Woollahra boomed from 1881, where over one thousand resident electors were recorded, more than double the number recorded in 1861. In 1900 the census showed a total population of 13,502, and in 1920 the total population was 25,300 (with 7,545 of these being resident electors). In the vicinity of the study area, the dedication of reserves for public enjoyment gained increased importance. George Wigram Allen, who had purchased land at the back of Camp Cove in 1859, dedicated some of his property to the Council for recreation purposes. In 1881 a swamp on the reserve was filled, and it was later fenced. In the late 1870s the trustees of the public reserve near Robertson's Resort spent £300 forming pathways, planting trees and cutting seats out of the rocks. Gap Park was proclaimed as a public reserve in 1887, and Vaucluse Council constructed a bathing facility at Laings Point (aka Green Point) around this time.¹¹³



Figure 2.25. A picnic party enjoying the views, and no doubt the sense of danger, beyond the fence at The Gap c1900–1910. The fence along the cliff top can be seen running north towards Gap Bluff. (Source: State Library of NSW, Star Photo Co. - Unmounted views of NSW, [chiefly 1900-1910] The Gap, South Head, ca. 1900-1910, PXE 711/10)

¹¹³ Jervis, James, *The History of Woollahra*. c1960-65, pp. 13, 172; Hughes Trueman Ludlow, *Heritage Study*, 1984 Vol 1, pp. 6-7, 26, 31-2



Figure 2.26. Photograph taken at Watsons Bay/Camp Cove in c1869-1874, likely to be the Water Police station (Source: Source: State Library of NSW, Small Pictures File, SPF/808).

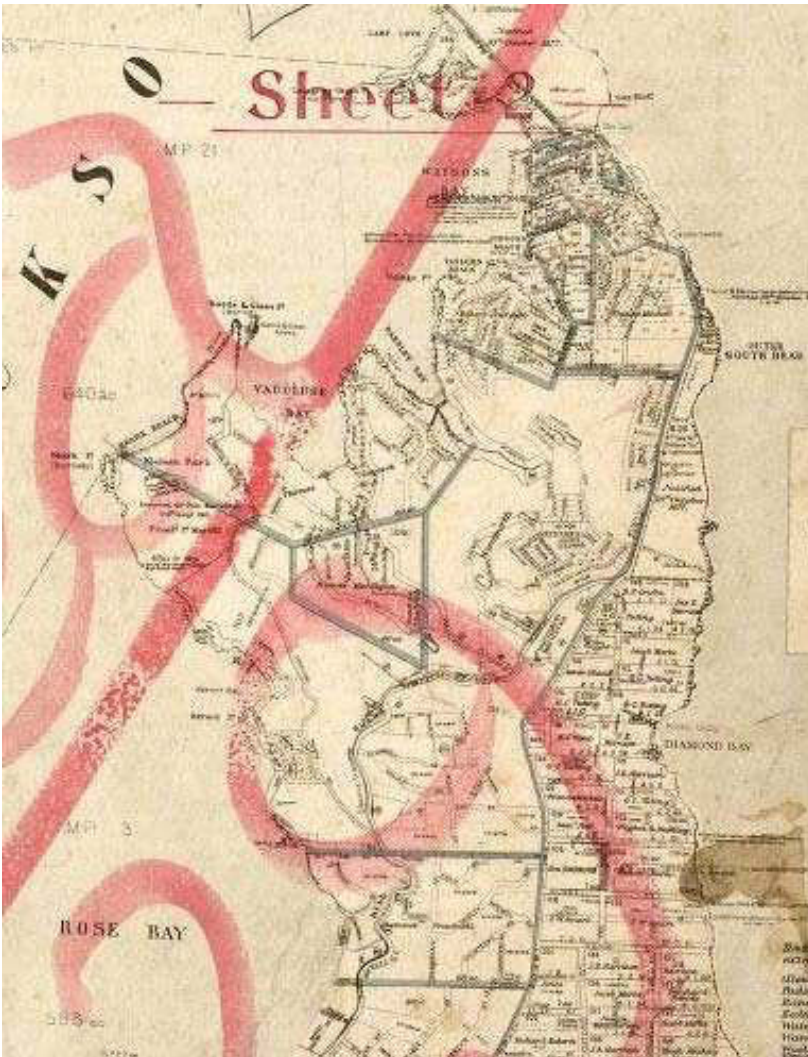


Figure 2.27. Part of a map of a 1900 map of the Parish of Alexandria showing march of suburbia past Rose Bay toward South Head. (Source: Detail of Parish Map – 14036801, Metropolitan Office Set, Land and Property Information NSW, 1999)

2.6.4 150th anniversary of Phillip's landing at Camp Cove

Amongst other events marking the 150th year since the arrival of the First Fleet, a ceremony was held at Camp Cove on Friday 21st January 1938 (see Figure 2.28). The Royal Australian Historical Society (RAHS), founded in 1901, was involved in the organisation of the event, and the President, Mr. K.R. Cramp spoke on the occasion to welcome Governor Lord Wakehurst and the other distinguished guests, and members of the public numbering in the thousands. An article in the Society's Journal written soon after the event reports that the official party assembled near the 'Camp Cove obelisk' which is likely to refer to the Society's monument to Phillip's landing at the southern end of the cove within the Green Point precinct. This monument was possibly constructed in the period leading up to the 150th anniversary.¹¹⁴



Figure 2.28. 150th Anniversary Celebrations, Camp Cove, 1937 (Source: State Library of NSW, GPO 1 – 28970)

2.6.5 Leisure in a place full of history – the National Parks of South Head

In 1977, the cottages and land adjacent to the Hornby Light were transferred from the Commonwealth to the NPWS, the light itself remaining in Commonwealth ownership. The National Trust had classified the Hornby Light site in 1975, and by this time the Head Lightkeeper's Cottage was derelict. In 1984 the Head Lightkeeper's Cottage, and Assistant

¹¹⁴ Conigrave, C. Price, '150th Anniversary Celebrations', *RAHS Journal and Proceedings*, 1938, Vol. XXIV, Part I, pp. 76-82

Lightkeepers' Cottages were re-roofed and doors and windows boarded up. Extensive conservation works were undertaken on the Head Lightkeeper's Cottage 1996–97, according to drawings and specifications prepared by David Sheedy. The cottage was re-roofed in slate, the verandahs reconstructed, and the joinery repaired.¹¹⁵

In 1977 the Army vacated South Head entirely except for Cliff House (within HMAS Watson) and the Marine Biological Station. From this time the NPWS began to acquire the decommissioned areas of South Head. The engine room, and excavated passages and magazines associated with the 1876 emplacements on the tip of South Head had earlier been closed up or covered over to allow safe public access. Gap Bluff was acquired by NPWS in 1982. In 1984 all standing structures were demolished except the Officers' Mess and garage, the Artillery Workshop, Store, and School of Artillery/Gunnery latrine. Green Point was held by Vaucluse Council for a period between c1930 and 1948, at which time landscaping works were undertaken. The Submarine Miners Firing Station and small observation post were sealed in 1967 according to Denis Gojak's site notes, to make public use of the area possible.¹¹⁶

Today the study area forms part of a larger area, including Camp Cove, Watsons Bay and The Gap, which remain popular destinations for tourists and Sydneysiders. Passive recreation such as walking, picnicking and enjoying the views and the heritage of South Head are the dominant activities within the study area. A heritage loop walk leads visitors around the tip of South Head past the remaining gun emplacements, Hornby Light and the Keepers' Cottages, and along the western side of the peninsula back to Camp Cove. A public path leads around a series of lookouts on the cliffs of Gap Bluff, up to the practice battery, and in to the Officers' Mess. Less formal access is available around Green Point. Each area is supplied with interpretive material giving a sense of the history and heritage of some of the main surviving items and features. Although the leisure activities are passive in themselves, the landscape and remnant items of the precincts' historical uses have been extensively modified with a view to open public access, as mentioned above (see Figure 2.29). Two of the buildings within the study area, formerly providing accommodation for military personnel are available as holiday accommodation within the Sydney Harbour

¹¹⁵ Thorp, W., *Archival Report, Hornby Lighthouse and Associated Structures*, 1983, p. 16; Sheedy, *Head Lightkeeper's Cottage*, 1998, p. 12

¹¹⁶ McNamara Soder Associates, *Officers' Mess, Gap Bluff*, 1989, pp. 3, 10. Note that Vaucluse Council was amalgamated with Woollahra Council in 1948, so Vaucluse Council would have 'held' Green Point at some time between 1894 and 1948.

National Park: Constables Cottage on the site of the former Water Police station at Camp Cove, and Green Point Cottage. Lady Bay beach (also referred to as Lady Jane Beach), proclaimed a legal nudist beach by Neville Wran in the 1976, is now very popular with Sydney's gay community and nude bathers.¹¹⁷



Figure 2.29. Crowds gathered on the peninsula to watch the start of the Sydney-Hobart yacht race, Boxing Day 2006 (Source: DECC)

2.7 Conclusion

The South Head peninsula has a long and fascinating history, which is richly attested by physical remains within the study area. The sixteen registered Aboriginal sites within the study area are an important part of Sydney's Aboriginal heritage. The Keepers' Quarters of the Hornby Lightstation are evocative of the working life and isolated existence of nineteenth century lightkeepers, turned towards the sea and away from the settlement. The cottages add to the evidence about the design, construction and operation of nineteenth century light stations in NSW. The remains of several generations of defence structures present within the study area are articulate about the evolving defence concerns of Sydney in the nineteenth and twentieth centuries, and the planning and construction that was undertaken to address the perceived threats of the day. They are evocative reminders of different eras of warfare, and trace the development of more sophisticated weapons and defences particularly across the second half of the nineteenth century. Leisure activities

¹¹⁷ Ayre, Jodi, 2006, p. 6-7;
<http://www.totaltravel.com.au/travel/NSW/sydneyarea/easternsuburbssydney/guide/watson-bay>

within the study area have left little physical evidence, until the recent adaptations of the site by the NPWS (now DECC) for public access. But the artworks, documentary and anecdotal evidence demonstrates a rich heritage of leisure associated with the site.

2.8 Chronology

| Period | Principal Events |
|----------|--|
| Pre 1788 | South Head peninsula occupied by the Birrabirragal |
| 1788 | Governor Phillip and small party land at Camp Cove on an expedition from Botany Bay to investigate alternative locations for establishing the colony. Aboriginal people watched and called to the strangers. |
| 1790 | Signal Station set up at Outer South Head. Daniel Southwell documents aspects of the local Aboriginal languages while posted at the Signal Station, and comments on the reduced numbers of Aboriginal people on the peninsula and the reduced communication between Aboriginal people and Europeans. |
| 1792 | Pilot Station and Government Fishery established at Watsons Bay |
| 1793 | Green Point granted to Edward Laing as part of his 'Roddam Farm' of 20 acres |
| 1803 | Surgeon John Harris cleared a rough road to South Head, probably terminating at the Signal Station |
| 1809 | A 'genteel pleasure party...consisting of 14 Officers and ladies' were struck by a ball of lightning while picnicking at South Head, probably near Camp Cove, or possible Watsons Bay. |
| 1811 | Governor Macquarie presides over construction of an improved road to South Head, to facilitate defence uses in case of emergency, and to provide access to ships anchored at Watsons Bay. The road was constructed by public subscription and also became popular for leisure day trips. This road also terminated at the Signal Station |
| 1818 | Macquarie Lighthouse, Australia's first formal lighthouse, completed at Outer South Head |
| 1840 | Water Police Station established on the eastern side of Camp Cove |
| 1843 | Green Point first subdivided as part of Roddam Farm, by Judge Donnithorne. No development resulted. |
| 1854 | Commencement of first batteries at northern tip of South Head discontinued 1855. Retained as reserve batteries until 1857 when probably site built upon by Hornby Light. |

| | |
|-----------|---|
| 1855 | Re-subdivision of Green Point. Some of the street pattern, chiefly the line of Pacific Street remains. The lots making up Green Point were acquired by the Government as a reserve for defence purposes. |
| 1857/8 | Construction of the Hornby Light Station on the tip of South Head. The light tower and semi-detached Assistant's Cottages were built at this time, following the wreck of the <i>Dunbar</i> in August 1857. Construction of the navigation obelisk at Green Point, as one of four to aid harbour navigation. |
| 1860 | The Head Lightkeepers' Cottage at the Hornby Light Station built in 1860. |
| 1870s | Mr and Mrs Busby purchased the rights of Aboriginal people Gurrah and Nancy to fish at Seven Shillings Beach, which forced the Aboriginal family to move out of the area. |
| 1871-1873 | Battery of 5 gun pits associated passages and magazine excavated from natural landscape |
| 1876 | 2 gun pits, passages, magazine stores and casemates cut out of stone at Inner South Head. A further 2 gun pits were excavated further south (now in HMAS Watson) including casemate store and magazine and linking open passageway to the two northern pits. First permanent barrack structures erected now in HMAS Watson. |
| 1877 | Substantial additions and alterations to Keepers' Cottages at Hornby Light Station |
| 1877 | The whole of South Head to the east and north of the present Cliff Street and Military Road re-dedicated as defence reserve |
| 1878-1881 | Land freed from the Green Point Defence Reserve for construction of a private Marine Biological Station. |
| 1870s-80s | Submarine Mining Firing Station constructed at Green Point. Construction commenced on rifle walls and entrenchments at South Head. Further construction of barrack buildings at South Head. |
| 1880s | Northern emplacement (W2) and Southern emplacement N4 converted for 6-inch MKV. Disappearing guns about this time entrenchments constructed behind these batteries |

| | |
|-----------|---|
| 1890-93 | W1 4 80-pounders were removed and relocated as a practice battery W6. Engine rooms generators and a number of searchlights and DRFs installed |
| 1895-1900 | Barrack buildings No. 26 and No. 27. Further barrack construction No. N19, N20, 25 in 1875. School of Artillery/Gunnery established at Gap Bluff, and practice battery constructed. |
| 1895-1901 | 9-inch cannon presently placed in gun pit overlooking Camp Cove relocated to this position from the Hornby Battery in the course of School of Artillery/Gunnery training activities |
| 1895-1903 | 'Constables Cottage' at 32 Cliff Street, Camp Cove was constructed as accommodation for Artillery personnel on the site of the former Water Police Station |
| 1889-99 | Military jetty and boat shed at Camp Cove constructed |
| 1897 | W1 modified for Hotchkiss MKII guns |
| 1898-1904 | 6-inch QFC 3 gun battery located at eastern margin of the fort (Asset 14). |
| 1903 | The northern 9-inch gun (N4) was replaced by searchlight |
| 1903-1912 | No significant construction work carried out |
| 1912 | New barracks and offices of School of Artillery/Gunnery commenced |
| 1914-1918 | Fort mobilised for War |
| 1918-1938 | No significant construction other than enlargement of the School of Artillery/Gunnery including new Officers' Mess |
| 1933-1939 | Hornby Light electrified, keepers vacate Keepers' Cottages, and cottages taken over for military accommodation after short period of private tenancy |
| 1938 | 150th anniversary of Governor Arthur Phillips' landing at Camp Cove. The monument to Arthur Phillip erected in association with celebrations conducted by the Royal Australian Historical Society |
| 1938-1939 | Observation Post and Fire Control Stations erected in association with modifications to the ordinance |
| 1941 | School of Artillery/Gunnery relocated away from South Head |
| 1941-1942 | Construction of submarine boom between Green Point and Georges |

| | |
|-----------|---|
| | Head, and a winch house, brick observation post, electric light and observation tower constructed at Green Point to in association with the net. Anti-torpedo boat gun also mounted at Green Point. |
| 1941-1950 | Substantial building construction especially at the southern end of the headlands and scattered huts and barracks. Mainly minor alterations to fortifications |
| 1945-1946 | World War Two Anti-Submarine and Torpedo Boom Net between Green Point and Georges Head dismantled |
| 1950-1980 | Arrival of Navy and period of considerable development in association with establishment of H.M.A.S Watson this period of development has had the most impact visually on the headland. Some fortifications used for storage, otherwise no work carried out on fortifications apart from dismantling and removal of artefacts |
| 1970s | Neville Wran declares Lady Bay a nudist beach in 1976 |
| 1982 | Defence lands transferred to the National Park. Most buildings associated with the former School of Artillery/Gunnery demolished by 1984 |
| 1996-1997 | Conservation works to Head Lightkeepers' Cottage |
| 2005 | Concrete remediation works were undertaken on the WWII Searchlight Emplacement (adjacent to Hornby Light) in 2005, by NPWS. |

3.0 PHYSICAL EVIDENCE - UNDERSTANDING THE PLACE

In this section the numbers in square brackets refer to the item numbering given to the heritage elements in this CMP (see Volume 2 of this report). Those which have an inventory sheet in Volume 2 of the CMP have the letters IS in front of the number.

3.1 Context

The National Park at South Head comprises a remarkable variety of buildings, structures, archaeology and landscapes. South Head is an exposed coastal headland with protected gullies. Sandstone is encountered everywhere in the form of rocky outcrops, platforms, boulders, paving, edging, steps and cliffs with hardy native species wind-sheared and gnarled in response to the harsh conditions. This dramatic landscape is overlaid and modified by the range of activities that took best advantage of the site's strategic location and natural attributes, including use of the land by the Birrabirragal people. There are at least 11 Aboriginal sites within the SHNP land at South Head including middens and rock engravings.

The most intense non-Aboriginal use for the entire headland north of Watsons Bay was for fortification and defence. This is reflected by the numerous defence heritage features that ring South Head and Green Point. Navigational uses took advantage of the prominences themselves such as the tips of South Head and Green Point, and this use continues today. The drama and isolation of South Head's setting relative to the congested city has always fostered some recreational use and access to the site. From the time of the first fortifications in 1850s and until the 1970s recreational use has been limited by the site's military use and has mostly been focused on the southern and western perimeter close to Camp Cove.

The heart of the headland is still occupied by the military (now the Navy at HMAS Watson) and remains closed to recreational users. Nevertheless, the recreational use of the headland outside HMAS Watson has intensified since other Defence lands were added to the Sydney Harbour National Park at South Head from the 1980s. Recreation and conservation are now the site's primary uses, which are evidenced in the changes to the site and its landscape, which have occurred since the 1970s, and the function and character of the recent building work and infrastructure.

3.2 Natural Heritage

The landscape of South Head is typical of an exposed coastal headland with a number of protected gullies. The Inner South Head walking track winds past shady coves and emerges into full sun and high winds on the cliff tops. Sandstone is encountered everywhere in the form of rocky outcrops, platforms, boulders, paving, edging, steps and cliffs. Vegetation is a restricted palette of hardy native species, typically wind-sheared and gnarled in response to the harsh conditions.

Heavy weed infestation is common, with the result that the precincts are not representative of any one vegetation community. Introduced species such as Coral trees dominate the canopy level of whole precincts. Localised areas of colourful exotic plantings occur around the heritage cottages, with some escapees into the wider landscape. Changes to natural water regimes support a different range of species than the indigenous heath. Cultural plantings include Norfolk Island Pines and Phoenix Palms, though the latter have self-seeded to a great extent.

3.2.1 Vegetation Assessment

Note this vegetation assessment has been provided by Rob Newton of the DECC.

Inner South Head, Lady Bay and Camp Cove Precincts

Historical photographs indicate that the entire headland has been cleared and modified (see Figures 2.15, 2.17, 2.26, 3.25). Some natural regrowth has occurred over the past forty years, supplemented by a planting program in 1997-2000. Remnant bushland consists of coastal heath namely *Melaleuca armillaris*/*Kunzea ambigua* scrub. There are high levels of weeds over much of the headland. There are no recorded threatened flora species.

Gap Bluff

Historical photographs (see Figures 2.25 and 3.3) indicate that much of the area has been cleared and modified. However, there has been natural regeneration of *Banksia integrifolia*. Remnant bushland consists of coastal heath, namely *Melaleuca armillaris* / *Kunzea ambigua* and *Banksia integrifolia* heath. There are varying levels of weeds within the remnant vegetation.

The area contains two species classified as endangered under the Threatened Species Conservation Act.

- *Acacia terminalis* subsp. *terminalis* (Sunshine Wattle) is located on rocky slopes within and around HMAS Watson. *Acacia terminalis* subsp. *terminalis* is restricted to rocky bushland areas in the eastern suburbs, North Head and Middle Head.
- Several planted specimens of *Allocasuarina portuensis* (Nielsen Park She-Oak) are located down-slope of the Armoury and along a drain line to the north. *Allocasuarina portuensis* is restricted to plantings in Nielsen Park and three other sites. The sites of the plantings at Gap Bluff are inappropriate in terms of habitat type, soil disturbance and range and in the event of their senescence they would not be replaced.

Green Point

Historical photographs indicate that the area has been extensively cleared and modified. Vegetation consists mainly of planted trees and shrubs with an infestation of weed species. There is little remnant vegetation. There are no recorded threatened flora species.

3.2.2 Vertebrate Fauna of South Head

Note this assessment has been provided by Rob Newton of the DECC¹¹⁸.

Pre-1788

The Vacluse area once hosted a rich diversity of fauna species. The following species were once recorded in the Vacluse area but are now locally extinct:

| <i>Species</i> | <i>Status</i> |
|------------------------------|-------------------------------|
| Ringtail Possum | Locally extinct |
| Long-nosed bandicoot | Locally extinct |
| Eastern Quoll | Extinct on mainland Australia |
| 3-toed skink | Locally extinct |
| Black, brown and tree snakes | Locally extinct |
| Green Tree Frog | Locally extinct |

It is likely that a number of native rats and carnivorous marsupials and further reptiles and amphibians also once existed in the area. A number of bird species once common in the Vacluse area are also now locally extinct.

Mammals

The only remaining native mammal species found within the South Head areas of Sydney Harbour National Park is the Common Brush-tail Possum. The Grey-headed Flying Fox (an

¹¹⁸ References used by Robert Newton are included Chapter 6 of the CMP.

endangered species) visits the area regularly to forage from food trees (such as Fig Trees) but utilises day roosting sites in other areas, such as the Royal Botanic Gardens. Insectivorous bat species are recorded occasionally but the species is unknown.

Pinnipeds (seals) that may occasionally utilise the foreshores are not listed.

The Park contains three introduced species, the European Fox, the Feral Cat and the Black Rat. Foxes and cats are major threats to vertebrate fauna within Nielsen Park.

Reptiles

A number of reptiles have been recorded in the Park including:

- Common Blue-tongue,
- Southern Leaf-tailed gecko,
- Leseur's Velvet Gecko
- Garden Skink
- Wall Skink
- Three-toed skink,
- Weasel skink.

In 2005 a Green Tree Snake swam ashore at Camp Cove Beach, was rescued and released at Gap Bluff. Apart from this record, there have been no snake species recorded in the Park for decades.

Amphibians

The Common Brown Toadlet (*Crinia signifera*) is the only amphibian to have been recorded at South Head in recent times.

Birds

Over the past 20 years a total of 51 bird species have been recorded within the South Head area. Twenty-one species are considered common, six of which are introduced species.

The following common birds have been recorded at South Head by NPWS staff over the past ten years:

*Common birds
recorded as breeding in Park*

*Common birds
not confirmed as breeding in the Park*

Superb Blue Fairy Wren
Noisy Miner
New Holland Honeyeater
Australian Raven

Nankeen Kestrel
Silver Gull
Spotted Turtle-dove*
Feral Pigeon*
Rainbow Lorikeet
Laughing Kookaburra
Spotted Pardalote
Red Wattlebird
Red-whiskered Bul-bul*
Magpie-Lark
Australian Magpie
Pied Currawong
House Sparrow*
Welcome Swallow
Silvereye
Common Starling*
Common Myna*

* = introduced species

Since 1986, a number of other birds have been recorded at South Head but are considered rare, migratory or irregular visitors:

*Uncommon birds and not recorded as
breeding*

Regularity of sightings

| <i>Uncommon birds and not recorded as breeding</i> | <i>Regularity of sightings</i> |
|--|---------------------------------------|
| White-faced Heron | Occasional sightings |
| Black-shouldered Kite | Occasional sighting |
| Whistling Kite | 1 recorded sighting |
| Osprey | 1 recorded sighting |
| Peregrine Falcon | Occasional sightings |
| Australian Hobby | 1 recorded sighting |
| Sooty Oystercatcher | Occasional sighting on the rocks only |
| Masked Lapwing | Occasional sighting |
| Crested Pigeon | Occasional sighting |
| Topknot Pigeon | 1 recorded sighting |
| Yellow-tailed Black Cockatoo | Seasonal sightings |
| Sulphur-crested Cockatoo | Occasional sightings |
| Crimson Rosella | Occasional sighting |
| Powerful Owl | Occasional sightings |
| Sacred Kingfisher | Occasional sighting |

| <i>Uncommon birds and not recorded as breeding</i> | <i>Regularity of sightings</i> |
|--|--------------------------------|
| Dollarbird | 1 recorded sighting |
| White-browed Scrub-wren | Occasional sighting |
| Brown Gerygone | 1 recorded sighting |
| Yellow-rumped Thornbill | Occasional sighting |
| Little Wattlebird | Occasional sighting |
| Yellow-faced Honeyeater | 1 recorded sighting |
| White-naped Honeyeater | 1 recorded sighting |
| Eastern Spinebill | 1 recorded sighting |
| Rufous Whistler | 2 recorded sightings |
| Satin Flycatcher | 1 recorded sighting |
| Willie Wagtail | Occasional sightings |
| Rufous Fantail | 1 recorded sighting |
| Black-faced Cuckoo-shrike | Occasional sighting |
| Spangled Drongo | 1 recorded sighting |
| Richard's Pipit | 1 recorded sighting |

Seabirds spotted from South Head but which do not utilise South Head as habitat have not been included above. These include shearwaters, gannets, terns and cormorants.

Over the past 1-2 years a pair of Peregrine Falcons have been commonly seen in the Park. The corpse of a Black-Tailed Kite has also recently been found.

Threatened species

South Head provides foraging habitat for the Powerful Owl and the Sooty Oystercatcher, but does not provide any suitable breeding habitat for either species. Both species are listed as vulnerable under the Threatened Species Conservation Act, 1995 have been previously only sighted occasionally.

3.3 General Development of the Cultural Landscape

This brief analysis draws largely on earlier analyses of South Head and background papers contained in DECC's archives and observations made during site inspections for the preparation of this CMP. It focuses on the development of the overall structure and character of the cultural landscape and describes the way the headland was accessed and used, rather than providing a detailed analysis of individual landscape elements.

The development of the historic non-Aboriginal landscape of South Head is underpinned by its topography, its public ownership and its intensive use for military and navigational purposes over the last two centuries. From its occupation by those waiting for sign of a supply ship in the first days of the British colony, observation has been an important activity on site. This continued through the nineteenth and twentieth century military, defence and navigational activities and influenced both the structure and appearance of the landscape until the NPWS began heavily revegetating the headland in the 1970s.

Prior to 1788 the headland is likely to have been covered with low coastal heath and scrub, with areas of woodland to the south.¹¹⁹ Further discussion of the landscape character and use during this period is contained in the discussion of each precinct below.

Uses within and adjacent to the study area were of a fairly low intensity until the 1840s. Although various small-scale camps had been established and the Water Police station was built near Camp Cove in 1840, it is likely that little clearing occurred until the construction of the Hornby Light and the first gun emplacement at Inner South Head in the 1850s. A watercolour by Charles Edward Stanley in 1847 shows the headland covered by low scrub (see Figure 2.23). From this time extensive clearing and the introduction of vast swathes of lawn, stone and wood structures, paving and bitumen saw the character of the landscape change. The precinct also started to develop a structure from this time with the construction of a ridge road originally servicing the Hornby Light and later providing a backbone for the development of military facilities. The associated road system developed in response to the topography and the planned location of the various facilities on the headland. Elements of it have come and gone as the various uses have done the same.

Development spread across the peninsula quickly from the 1850s to the end of the century, although the bulk of the military structures would not appear until the first half of the twentieth century. The emplacements and buildings were constructed largely of stone and wood and often made use of the existing topography and the shallow bedrock. A number of rock outcrops for example, were incorporated into security walls and later fortifications made use of the expanses of bedrock for building material.¹²⁰

¹¹⁹ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.

¹²⁰ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.



Figure 3.1. Part of a photograph taken in 1890s showing the open landscape in the foreground with the fortifications built in amongst the rocky outcrops (Battery not within the study area) and the denuded Green Point in the distance. Source: Mitchell Library, Small Pictures File Ref: SLSPF_749 1890

By the 1880s (see Figure 3.1) parts of the headland had been substantially cleared and by the 1930s (see Figure 3.2, aerial) only a few areas of low scrub remained. The dominant features at this time were the areas of grass and exposed rocky outcrops of sandstone. With the expansion of the Radar School in the 1940s and 50s, the density of built development increased.

The elevated landform provided a strategic position for first line defence of Sydney Harbour. Along with North Head it formed a natural outer barrier, where entry could be controlled through the heads. It was a place for observation of potential invaders, trade vessels and passenger ships. The elevated landform of South Head also formed an integral part of the harbour and how it functioned. Most of the movement on and off the peninsula occurred by land and not by the surrounding water. The observation was largely outward, apart from the lighthouse and navigational markers, which were designed to be seen from the ocean and harbour. Clear views to and from the area were important for the functioning of the batteries, which took advantage of the elevated positions along the plateau.

Although visually the plateau of South Head was dramatically altered by the 1880s and the peninsula had been cut into and filled in places, its natural underlying form has remained. Unlike other areas of the Sydney Harbour foreshore, there has been no major reclamation or quarrying. The dramatic natural edges of the landform have remained with only a few structures such as walls and steps being introduced below the plateau.



Figure 3.2. Aerial photograph taken in 1931 with South Head in the distance and Green Point in the foreground, Hall & Co. Source: State Library NSW GPO 1 07303 (Hall 014 Macleay Museum)

As noted above, the plateau was progressively cleared from the 1850s. For the next 120 years the entire headland from the Hornby lighthouse to the Gap Bluff Artillery/Gunnery School appears to have maintained a fairly homogenous appearance. Expanses of lawn, the use of specimen trees and domestic scale gardens seem to have been a common approach. Some formal gardens were established around the Officers' Mess at Gap Bluff [4A.1], along with areas of hard landscaping using stone and bitumen.



Figure 3.3. Part of a photograph taken in the 1940s of Gap Bluff showing the open exposed character of the landscape during the occupancy of the area by the Defence force. Sourced by DECC from the State Library of NSW Image Library.



Figure 3.4. Aerial view of Gap Bluff in the 1955–60 showing the character of the open vegetation around the built up areas and the lawns, specimen trees and domestic scale gardens around the buildings. Source: HMAS Watson Library



Figure 3.5. Domestic scale garden in front of the Officers' Mess [IS 4A.1]. October 2006.

The open character of the landscape that prevailed from the 1850s to the 1970s has been altered dramatically in the last 30 years. The bulk of the headland, which once operated as an integrated whole, has been sectioned and fenced. The current study area represents only slices of the former south head military precinct, with the central core of nineteenth century development now within HMAS Watson. The Hornby Lightstation precinct [1A.0], which was once fenced and separated from the military facilities, has joined the northern section of the Hornby Battery precinct. The whole area has also been comprehensively revegetated with few open grassy areas remaining (see Figure 3.6). All of these factors present challenges in conveying a functional understanding of South Head and its role in

the development of Sydney to the public. The current landscape is described in more detail below.



Figure 3.6. Dense revegetation around the Assistant Lightkeepers Cottage [IS 1.2]. Oct. 2006.

The roads and paths at South Head are the framework, which link the separate sites to each other and to the road network in the south. Until the division of the site between HMAS Watson and the National Park, the road layout was fairly coherent as it reflected the location of sites positioned to take advantage of prominent or level locations and the fact that access took paths of least resistance across the difficult terrain. Since the division of the site, understanding which of the roads and paths still follow the historical routes is difficult, as the existence of HMAS Watson now isolates the interior of the headland from its perimeter. The site's roads, which once simply passed through centre of the headland, are confused as they still physically pass in and out of the National Park but are now fenced and blocked at the boundary.

The earliest road to South Head appears to date from the 1850s. It linked the tip of South Head to Watsons Bay. This road, described as the 'Government Road to the Battery', originally ran unobstructed along the headland's ridge. The alignment of the road is still reflected in a single carriageway of rudimentary concrete, which runs south to the Lightkeepers Cottages. However, with the partitioning of the headland between HMAS Watson and the National Park, the road now is gated at the boundary of HMAS Watson with restricted secure access. Mid-twentieth century roads, which branched from the nineteenth century road and service the Defence buildings in the centre of the headland, are now concealed beneath the regenerated bush.

The division of the landscape into precincts below, relates more to the current landscape and the DECC's management of it than reflecting the reality of historical use. Between the 1850s and the 1970s, the entire headland from Gap Bluff to Inner South Head operated as a single precinct for military use (with the exception of the lightstation). Many of the remnants of batteries and other fortifications relate to elements within the land now occupied by HMAS Watson. Effective management of the elements within each precinct of the National Park outlined below, will require an understanding of these relationships across the headland as a whole.

3.4 Precinct 1 - Inner South Head

3.4.1 Precinct Description and Landscape Analysis

The tip of the South Head peninsula is open and exposed with sweeping views. Rocky outcrops emerge from dry expanses of lawn and low, wind-sheared heath occurs in pockets between boulders. Native vegetation has been replanted and has re-seeded since the 1970s: *Westringia*, *Banksia*, *Acacia*, *Lomandra*, *Dianella*, *Hibbertia*. Around the cottages are shrub plantings such as *Callistemon*, *Agave*, *Strelitzia*, *Agapanthus*, *Jasmine*, *Lavender*, *Plumbago*; and some weeds such as *Morning Glory*.

There have been at least 6 Aboriginal sites recorded in the precinct including rock engravings, rock shelters and middens. Some of these have been recorded from as early as 1899. Some of the engravings were partially destroyed by WWII defence structures and most are quite heavily eroded by weathering or by foot traffic.

At the tip of Inner South Head the most prominent structures relate to the use of the headland for navigation. The most visible feature is the Hornby Light [1A.3], which is owned by Sydney Ports Corporation and is outside the study area. The distinctively coloured and patterned Hornby Light is prominently sited on the cliff edge on the east side of the headland and can be seen from a wide area around the harbour entrance. Adjacent to the Light are the single-storey Head Lightkeeper's Cottage [1A.1] and the semi-detached Assistant Lightkeepers' Cottage [1A.2] now in the ownership of DECC. Together with archaeological remains these buildings and their settings form the historical Hornby Lightstation precinct [1A.0].

The northern tip of South Head also accommodates a range of nineteenth and twentieth century structures that relate to the use of the headland for fortification and defence. This

precinct at the very end of the headland was historically a focus for frontline defence activity, within the military accommodation and support buildings further south towards Gap Bluff. The features ring the headland and include the remains of an 1854–55 gun pit, the later Hornby Battery, an engine room, remains of an 1890s searchlight emplacement, a WWII searchlight and parade ground. On the east side of the headland, Hornby Battery is the largest of the fortification features. It is a complex of two original gun emplacements, underground passages and magazines that were later converted and adapted in the twentieth century. A number of small buildings have been removed from the central area around and below the parade ground.

The features noted above are now linked by a pedestrian loop path laid out by the NPWS. The path is paved and allows easy visitor access around the headland itself. The strong line of the NPWS path has changed the character of the headland's roads, placing more emphasis on the loop path as a pedestrian route that wraps around the site, while the earlier roads were linear running through the centre of the headland connecting it to the south.

Historically, the headland appears to have had an open character with very little vegetation to provide the clear views needed for operation of the lighthouse and batteries (see Figures 2.14, 2.15, 2.25, 3.1, 3.2). The Lightstation was separated by a fence from the military operations across the rest of the headland. The area to the south of the Lightstation formed part of the Artillery/Gunnery and Radar Schools that stretched from Gap Bluff to Inner South Head, through the area currently occupied by HMAS Watson. Apart from the very tip of the headland, the areas managed by DECC have now been revegetated.

There are a number of historical precincts, structures or archaeological elements in the Inner South Head Precinct. These are:

- Hornby Lightstation Precinct [1A.0]
- Head Lightkeeper's Cottage and Garden [IS 1A.1]
- Assistant Lightkeepers' Cottage and Garden [IS 1A.2]
- Hornby Battery [1.3]
- Hornby Battery Shell Store and Collection [IS 1.3A]
- Hornby Battery Engine Room and Collection [IS 1.3B]
- 1854/5 Gun Emplacement [IS 1.4]
- WWII Searchlight Shelter [IS 1.5]

- Searchlight Emplacement No. 2 [1.6]
- Former Parade Ground [1.7]
- Possible Dump [1A.8]
- 9-inch Battery Northern DRF [1.9]
- Drain from Engine Room [1.10]

Note the Hornby Lighthouse [1A.3] is not within the National Park land and is not covered by this CMP.



Figure 3.7. The tip of the peninsula, open and exposed with sweeping views. October 2006



Figure 3.8. View of the tip of South Head from the Harbour. With (from left to right) the WWII Searchlight Shelter [1.5], the Hornby Light [1.0] and the Assistant Lightkeepers' Cottage [1.2]. (Source: Australian Heritage Database).

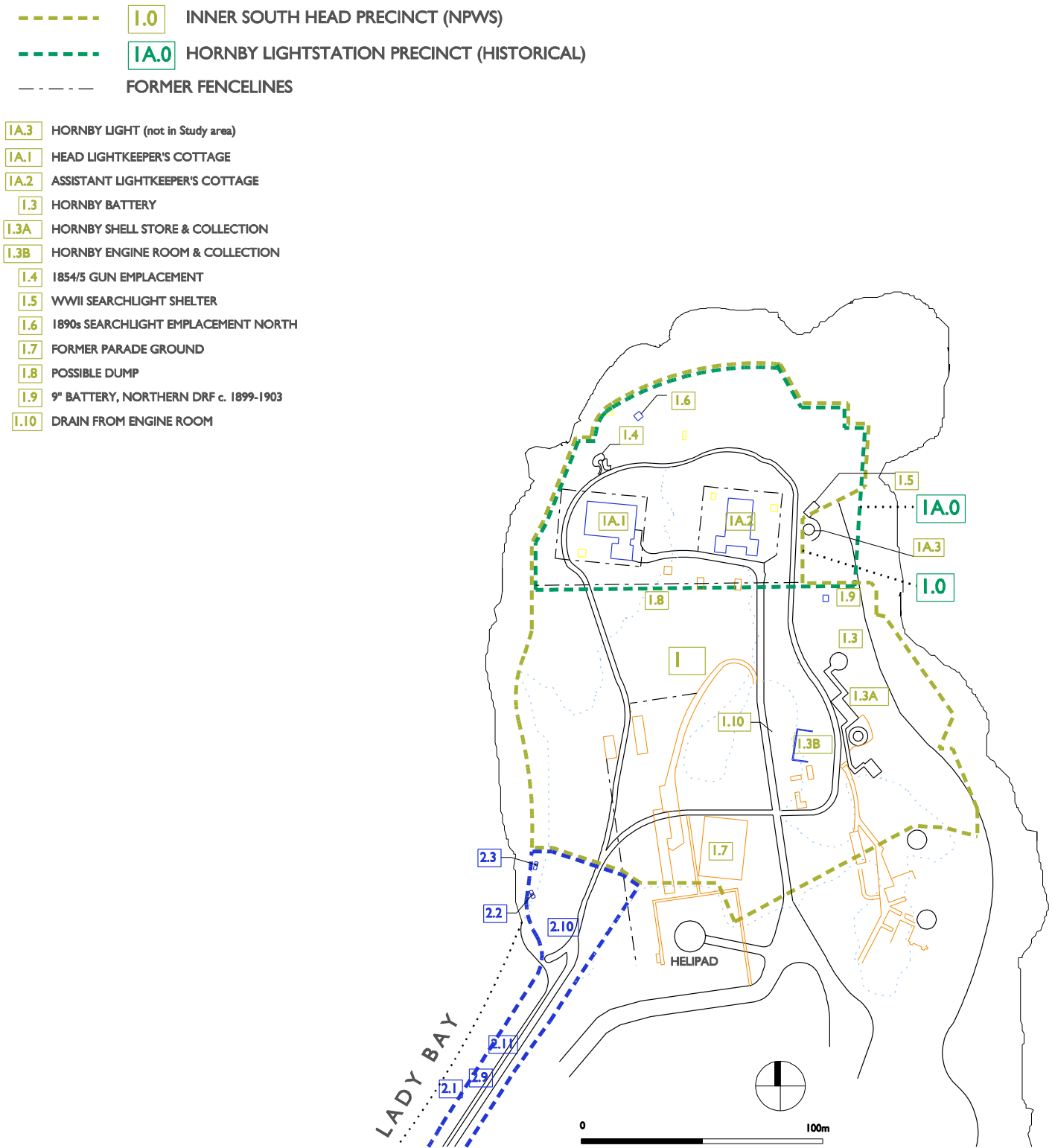


Figure 3.9. Sketch Plan of Precinct 1 Inner South Head. GAO Heritage Group 2007.

3.4.2 Views and Vistas - Inner South Head

The notable views and vistas for Inner South Head are:

1. Views to South Head from sea going vessels on the ocean and on entering the heads toward the rocky headland topped with low heath and with the Hornby Light [1.0] dominant. At close range the WWII Searchlight Shelter [1.5] is also a dominant feature above the rocky ledges (Figure 3.8). This view has historic and contemporary significance as part of the symbolic gateway to Sydney and Australia.
2. Views to South Head from North Head (and vice versa). These views have important symbolism marking the entrance to the Harbour – a gateway to the greater city of Sydney and in many instances (particularly historically) to Australia as a nation.
3. Views to South Head from vessels in Sydney Harbour. The headland forms part of suite of undeveloped (many National Park) landscape features that give Sydney Harbour its unique qualities. The Head Lightkeeper's Cottage sitting in open grassland (as it has done historically) is visible. Historically all the Lightstation buildings would have been visible sitting in open grassland (Figure 3.25).
4. Views to South Head from other areas, particularly headlands such as Middle Head across the Harbour. The Lightstation buildings would be visible from elevated areas, although scrub now obscures the Assistant Light Keepers' Cottage, which traditionally would have been more open.
5. The more open vista when pedestrians move from the more vegetated sections of the Inner South Head loop path to the more open sections of the headland with views back to Sydney Harbour (Figure 3.7, 3.13).
6. Views to and from the Head Keeper's Cottage sitting across open grassland (Figure 3.8). This view is historically correct with the exception of the loss of the timber picket fences. The open setting assists in the interpretation of the heritage significance of the cottage (Figures 2.7 and 2.8).
7. Views to and from the Assistant Lightkeepers' Cottage [1.2]. The views to the Cottage are now mostly obscured by medium height native scrub or by paling fences approximately 1.8 metres high. Although historically there was a tall picket fence around these cottages (Figures 2.7 and 2.8), views were possible through the fence, and the roof of the building was dominant over the fence. By the early 1900s there were only low picket fences (Figure 3.25).
8. The visual relationships between the Head Lightkeeper's [1.1] and Assistant Lightkeepers' [1.2] Cottages, currently obscured by scrub. Historically the area

between the two cottages would have been open grassland with only picket fences between.

9. The visual relationships between both Lightkeepers' Cottages [1.1, 1.2] and the Hornby Light [1.0], currently partially obscured by scrub (Figure 3.6 and 3.11). Historically all the Lightstation buildings were situated in cleared grassland with only picket and paling fences between and views out to the ocean and Harbour (Figures 2.7, 2.8, 3.25).
10. Views from the accessible areas of the headland back to the Hornby Light [1.0] with its maritime setting beyond (Figure 3.9).
11. The open grassland setting of the fortifications on Inner South Head with views from and over the structures to the Harbour or ocean including the Hornby Battery [1.3], the 1854/55 gun emplacement [1.4], the WWII Searchlight [1.5], the 1890s gun emplacement [1.6] and the c1900 Directional Range Finder [1.9]. (See Figures 3.15, 3.16, 3.23, 3.24, 3.25).

3.4.3 Buildings and their Settings

The Hornby Lightstation [1A.0]

The Head Lightkeeper's Cottage [1A.1] is sited on the west of the headland in an exposed position on a flat rock platform. The Assistant Lightkeepers' Cottage [1A.2] is located in between the Head Lightkeeper's Cottage and the Light. The rear of the cottages is benched into the slope and surrounded by a thick vegetation screen and a timber fence (Figure 3.13). The Hornby Lighthouse [1A.3] is not managed by DECC and is not included as an element in this CMP.



Figure 3.10. The Hornby Light looking to the north over the entrance to the harbour towards Manly in the distance. The loop-walking track is to the left (west) of the Light and Assistant Lightkeepers Cottage is sheltered behind a dense screen of trees. October 2006



Figure 3.11. Looking to the east in front of the Head Lightkeeper's Cottage [1A.1] with the Hornby Light in the distance beyond. October 2006

Head Lightkeeper's Cottage and Garden [IS 1A.1]

The Head Lightkeeper's Cottage is a domestic scale single storey L-shaped mid-nineteenth century cottage. The building is located on the more exposed western side of the headland and its formal front is finished with a posted timber verandah facing north to the dramatic view of the harbour entrance and North Head. Heath land bush regenerated on the shallow slope on the east side of the cottage provides some sense of enclosure and protection (Figure 3.11). This contrasts with nineteenth century images of the site, which show an open exposed landscape mostly cleared of vegetation. The more sheltered quality differs from the historic character, which was fairly exposed with a clear visual link to the Hornby Light. A weathered length of (most likely late twentieth century) paling fence and a single gatepost align with part of the cottage's eastern boundary.

The cottage was originally constructed in two stages, commencing c1861 with a four roomed cottage, kitchen and stable (three years after the Assistant Lightkeepers' Cottages). The work was undertaken by the Colonial Architect, then under the stewardship of Alexander Dawson. The cottage was serviced by its small, detached kitchen building. The smaller cottage was extended in c1878 (the Colonial Architect was then James Barnet) to include two additional rooms and a hall on the west side. The 1878 work also included outbuilding and yards that have been removed. Additions to the cottage from the improvement works in c1902 including a washhouse have been removed but are still evidenced by stone platforms and parts of their footings.



Figure 3.12. Looking to the southeast from the 1854 gun pit past the Head Lightkeeper's Cottage to the trees that shelter the Assistant Lightkeepers' Cottages. The NPWS loop path passes in front of the Head Keepers Cottage. December 2006.

Assistant Lightkeepers' Cottages and Gardens [IS 1A.2]

The Assistant Lightkeepers' Cottages are a pair of long attached cottages either side of a north south party wall. Their low scale is accentuated by the fact that the rear of the cottages are benched into the stone and constructed well into the southern slope which protect the buildings from the worst of the southern weather. The face of the sandstone excavation is still obvious in the rear service way, which links the two rear laundries. Each cottage has an enclosed timber posted verandah facing into intimate domestic scale gardens screened and protected on all sides by a five foot timber paling fence and regenerated heath land. The setting of the Assistants Lightkeepers cottages has a sheltered domestic quality in contrast to the Head Lightkeeper's Cottage, which is more exposed. The Assistants' cottages have been tailored as homes for DECC staff while the Head Keepers cottage has been unoccupied since vacated by Defence in 1977.

The Assistant Lightkeepers' Cottages were initially two three-roomed cottages built c1857 to designs by the Colonial Architect, Alexander Dawson. The original cottages, which were fronted by verandahs on their east and west elevations sheltered under the main roof, may have had verandahs to the north and were serviced by a small, attached kitchen against the south wall. As with the Head Lightkeeper's Cottage, the Assistant Lightkeepers' Cottages were extended in c1878. The work included living rooms and washrooms. Works were also undertaken by Defence in the 1940s which may have included enclosing the verandahs, partitioning of the wash area for bathrooms, extensive refinishing of the interior with cement and laying of a concrete slab in the verandahs.

The exterior of the Assistant Lightkeepers' Cottages features painted sandstone, painted timber joinery, roof slates and lead flashings. The building retains some fibrous cement sheeting from the 1940s work. The rear laundries are finished with painted bricks. The exterior and interiors of the cottages are in reasonable condition but have been altered since the nineteenth century works.

The gardens of the Assistant Lightkeepers' Cottages are domestic, busy and intimate in character and are surrounded by a five-foot unpainted timber paling fences, and the bushes and trees on the perimeter, which block views. On the north boundary the fence drops into a gully and good views can be gained of the dramatic panorama over the harbour entrance to North Head.



Figure 3.13. Looking at the south-east corner of the Assistant Lightkeepers Cottage with the cottages benched into the slope the verdant garden and showing the verandah enclosed in the 1940s and the recently installed slate roof. October 2006

Directly to the west of the Head Lightkeeper's Cottage is a circular concrete base – this is likely the base of a flagstaff referred to in documents as being in-situ around 1902.¹²¹ The centre of the base has the remains of the housing for the timber staff. There is evidence of fixing points in the rock for the stays around the base some with iron fixings remaining.

¹²¹ Sheedy, David, CMP for the Head Lightkeeper's Cottage Hornby Light, Inner South Head, Prepared for NPWS, May 1998,

The flagstaff was originally within the picket fence of the Head Lightkeeper's Cottage garden.



Figure 3.14. The concrete base of the flagstaff, looking south west over the harbour. October 2006

3.4.4 Structures & Historical Archaeology – Inner South Head

There are a number of surviving military features including gun emplacements and fortifications located around Inner South Head. These military features were positioned on the perimeter of the headland to take advantage of the headlands' height, its precipitous cliff edge (over 50m to the east) and the fact that, out of all the harbour headlands, it projects the greatest distance into the harbour entrance. The military features that are now sited within the Sydney Harbour National Park at South Head are part of a wider collection of emplacements that were constructed for the defence of Sydney from the mid 1850s until the close of WWII. They share a history with fortifications now within HMAS Watson, but which are now visually disconnected and separately managed. Volume 2 of this document contains a full Inventory of the identified heritage elements and Inventory Sheets for selected individual heritage structures. The Inventory number is shown in square brackets in the text.

1854–55 Gun Pit [IS 1.4]

The earliest feature is the remains of an 1854–55 Gun Pit for a single gun, which was cut from a bluff in the rock for defence of the harbour prompted by the Crimean War. This pit was originally partnered with another to its east on which the Hornby Light was constructed. This pit is located close to the cliff edge, north of the Head Lightkeeper's Cottage. The pit has an unfinished appearance and was never armed. It still is in good

condition if a little weathered. It features a banquette, a distinctive rock apron and a flared opening with a short passage entering the pit from the south. A trench is cut on the northern side of the pit, which Gojak suggests was cut at a later date for an unknown purpose. The pit wall still has vestiges of its picked stone finish.



Figure 3.15. The 1854/55 gun pit [1.4] in the foreground with the Head Lightkeeper's Cottage [1.1] in the background. October 2006.

The Hornby Battery [IS 1.3]

The largest and most impressive of the military features at Inner South Head is the Hornby Gun Emplacements, with their passages and magazines. In 1876 work commenced on a complex of five pits, with two pits for 9-inch RML (rifled muzzle loaders) guns in the north and two pits for 10-inch RML guns further south. A year later a further pit for a 10-inch RML gun was constructed further south. The pits were associated with entrenchments, buildings and accommodation. However, the whole complex is now separated between the National Park and HMAS Watson with only the two northern pits some passages and magazines within the National Park.

The complex visible above ground includes two circular gun batteries, which were originally excavated out of the rock in 1876. The walls, banquettes and parapets in the 1876 work consist of both excavated stone and dressed stone blocks with rounded corners and chamfered corners to the passages. This work was undertaken by the Colonial Architect under the stewardship of James Barnet and his hand is evident in the quality of the construction and design. The pits are connected by a cranked underground passage leading to magazines and shell stores. The complex was altered in parts in 1903 and substantially altered again in 1938–39. Most of the 1870s work has level sandstone floors. The northern pit still features a central gun pivot. The shallow passages would have been

originally roofed with stone blocks, which would have sat in the surviving stone rebates. The deeper internal passages in the south featured vaulted ceilings finished with lime wash. Spoon drains are cut into the passage floors to drain seepage and waste water.

In 1889 the gun emplacement (now closest to HMAS Watson) was substantially modified to replace the fixed gun with a disappearing gun. The 1889 work was executed in concrete, in contrast to the fine Barnet era stonework. As part of the work the northern magazine complex added together with a nearby command post and directional finding station. A passage was constructed connecting the 1890s Engine Room [1.3B] to the west of the Battery.

In 1938–39 the infrastructure was again modified and the facilities were updated. The southern pit was modified again, the northern passages were widened and roofed with reinforced concrete ceilings, the magazine and shell store [1.3A] in the northern section were enlarged and blocked the passage connecting the two gun pits. The whole complex is in reasonable condition, even considering its age and location. Its condition is reasonably stable and early features are still discernable. Surprisingly there is little evidence of vandalism and graffiti.



Figure 3.16. Looking north-east over the northern gun pit showing the 1876 work, the central pivot and the 1903 searchlight emplacement. October 2006.



Figure 3.17. Looking north over the southern gun pit showing the 1889 and WWII works which substantially modified the emplacement to replace the 9-inch RML (fixed) gun with a 6-inch BL, MKV, and then with a 6-inch BL MKVII disappearing gun. October 2006.



Figure 3.18. View of the interior of the Duty Room formed out of 1870s passage in 1939 showing the reinforced concrete ceiling, rendered walls and timber floor boards. Source: DECC 2004.

Engine Room [1.3B]

To the west of the Hornby battery, the north-south walking track passes through an elevated open grassed area just before it turns to the west. In the area bounded by the walking track and the road to Lightkeepers Cottages is the location of the 1890s underground Engine Room. From the 1890s until the site was connected to the electrical grid in 1931, the engine room provided electricity to the DRFs, searchlights, barracks and the Submarine Mining Observing Station overground conduits.¹²²

The Engine Room [1.3B] was inspected in November 2006 by NPWS staff and Paul Davies, heritage consultant, but has not been officially recorded. The room is a rectangular chamber with cast iron columns, brick walls and a wainscoting of glazed tiles in a diamond pattern. The main chamber is partnered with a ventilation shaft and a coal store and shaft.

¹²² Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.

A narrow access passage runs from the ventilation shaft to the north-east and rises up to the Duty Room at the Hornby Battery. The machinery has been removed but the floor is littered with scattered artefacts. The exit point for the engine room drainage is still evident concealed in vegetation off the walking track back towards Lady Bay. It is a substantial sandstone drain with sandstone and cement slab capping.

A long north-south defensive ditch/entrenchment was constructed along the west of the 9-inch Hornby battery and is shown in the 1929 aerial photographs (see Figure 3.2) in two lengths. The construction and form of the structure has not been confirmed and the redoubt has been filled in. Today there is no obvious landform to evidence its location.

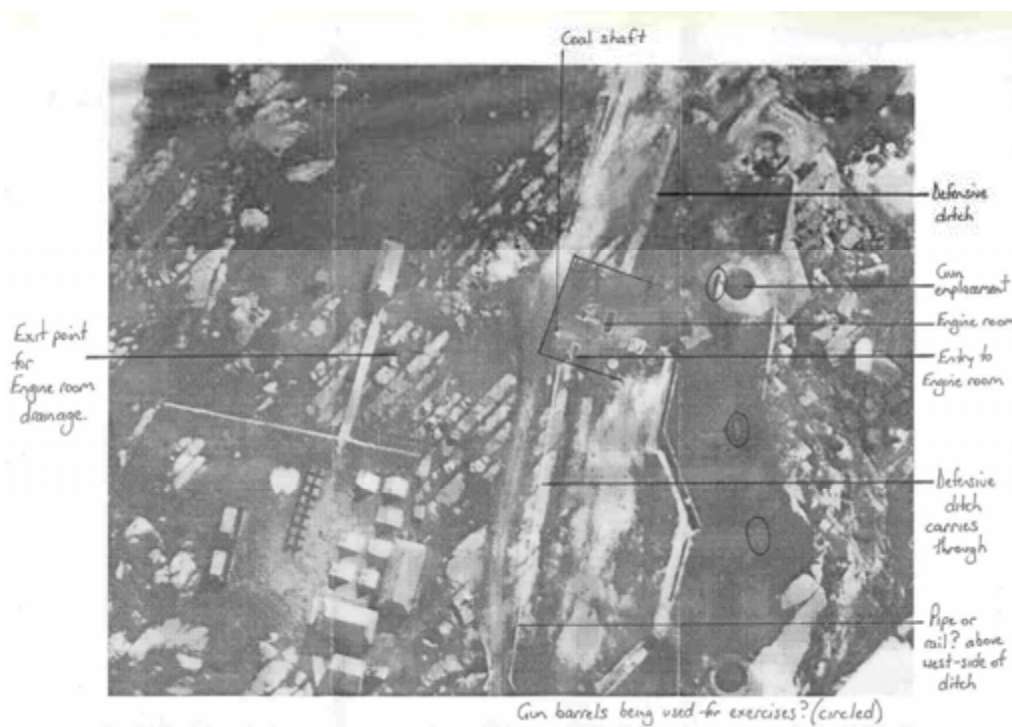


Figure 3.19. Copy of the 1929 Aerial Photograph, annotated to show the approximate location of the Engine Room [1.3B] in relation to the room's surface features that are still open at the surface. Source: DECC, annotated November 2006.



Figure 3.20. The approximate location of the Engine Room [1.3B] below the level area adjacent to the loop walking track is shown by PWD staff. October 2006



Figure 3.21. Interior of the Engine Room [1.3B] visited in 2006. Source: DECC 2006.

Landscape Storage Area [1.7] (Parade Ground)

In the southern half of the area bounded by the walking track loop on the west side of the road to the Lightkeepers Cottages is a rough asphalted open area within a slight depression almost completely surrounded by revegetation and is used to store construction and landscape materials.

The area is believed to correspond with the location of c1940s Army buildings around a parade ground, although this may be further to the south closer to where there is now a helipad. In this case the asphalted landscape material storage area is likely to be part of a road or the floor of a former building (see Figures 3.25 & 3.26).



Figure 3.22. The rough asphalted open area, which corresponds with the location of c1940s army buildings around a parade ground [1.7]. October 2006

c1890s Searchlight Emplacement [1.6]

North of the Head Lightkeeper's Cottage near the northernmost point of South Head on the lower part of the cliff are the remains of a late nineteenth century Searchlight Emplacement. The structure consists of a single reinforced concrete chamber with a slit for

the Searchlight Emplacement. Gojak suggested that this construction dated the work to the 1890s. The surviving concrete structure is partially deteriorated with rusting metal work but is stable overall.¹²³

WWII Searchlight Emplacement [IS 1.5]

To the north of the Hornby Light is a reinforced concrete blockhouse, which is the shell of a WWII Searchlight Emplacement, which originally housed a carbon arc searchlight. No original fittings and fixtures survive. The blockhouse has a flat concrete roof with a large rectangular aperture for the searchlight taking up most of the front (north) seaward wall and part of the side (east and west) walls. Two brick piers support the concrete roof just inside the aperture. The block has a door opening in its east wall. A concrete slab and steel fixings to the east of the block may have been the base of a storage building. 124 Concrete remediation works were undertaken by NPWS in 2005.



Figure 3.23. The WWII Searchlight Emplacement viewed from the southeast. October 2006

c1900 Directional Range Finder [1.9]

South of the Hornby Light is the remains of a smaller structure located at the precipitous cliff edge. The structure was used as a Directional Range Finder (DRF) from c1900 to about 1925 constructed to serve the 9-inch and 6-inch guns near the Hornby lighthouse.¹²⁵ The DRF is constructed in reinforced concrete with a central pillar mount for the range finder. The structure has no roof and no surviving fittings. The surviving concrete structure is partially deteriorated with rusting metal work but is stable overall.

¹²³ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p

¹²⁴ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.

¹²⁵ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.



Figure 3.24. The Direction Range Finder on the cliff edge. October 2006

3.4.5 Other Historical Archaeological Potential at Inner South Head

Like other areas of the study area, this precinct is likely to contain evidence of historic services, particularly those related to the engine room and original power supply. A number of small buildings are also shown on c1900 plans and images in the vicinity of the parade ground (see Figure 3.25). They are likely to have been on brick or stone piers and are unlikely to have left substantial archaeological remains. A vegetated mound behind the lightkeeper's cottages has evidence of building debris in it. It is likely to be the site of the former stables and possibly also a domestic dump associated with the cottages.



Figure 3.25. Inner South Head c.1900-1910. The stables can be seen in the centre of the image between the two lightkeeper's cottages. Three small buildings can also be seen behind this in the area (now site of landscape store [1.7]). Source: State Library of N.S.W., South Head c1900-10 Ref: PXE 711/8

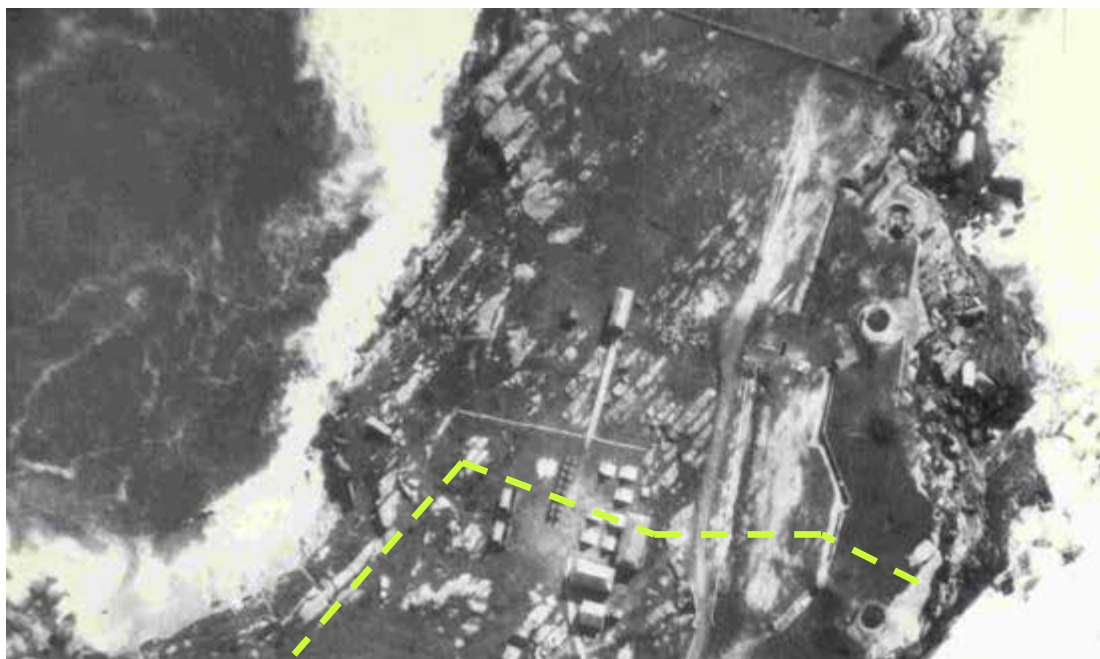


Figure 3.26. Part of the 1929 Aerial of South Head. The fence marking the southern boundary of the Hornby Light precinct is evident in the north as is the 1870s gun pits, open air passages and redoubt in the east (left). The dashed line shows the current approximate boundary with HMAS Watson. Source: DECC

3.5 Precinct 2 - Lady Bay [IS 2.1]

3.5.1 Precinct Description and Landscape Analysis

This narrow strip of land, cliffs and rocky foreshore once formed part of the military precinct that stretched across the headland and was once used for artillery training and coastal defence. Most of the archaeological and built evidence within this precinct, therefore, relates directly to the adjacent HMAS Watson and Inner South Head precincts.

The area has been heavily revegetated and a number of buildings associated with the searchlight observation station partially removed. Currently, the path widens to a road and bitumen turning bay that services a toilet block and rubbish area. The area is semi-enclosed by a tall stand of *Banksia integrifolia*, *Melaleuca armillaris* and *Casuarina*. A fenced bush regeneration area occurs on the cliff edge. At Lady Bay itself, a shady track cuts across the steep slope allowing glimpses to the water. The study area is at its narrowest here, up against the wire fence boundary of HMAS Watson. The dominant canopy species is *Banksia integrifolia* with a *Lomandra* understorey.

There have been at least 5 Aboriginal sites recorded in the precinct in the past including rock engravings and middens. Many rock engravings have been heavily eroded.



Figure 3.27. Looking from the walking track back over Lady Bay to the north. The Boundary to HMAS Watson is close to the track on the east (right). October 2006.

The walking path, again concrete, runs above Lady Bay Beach on the cliff edge. Stone steps, cut out of the rock and with dressed stone blocks, drops precipitously down to provide access to the southern end of the bay.



Figure 3.28. Lady Bay looking north. Source: DECC 2004.



Figure 3.29. An artefact on the beach at Lady Bay [2.1] uncovered by tidal action. Source: DECC 2004.

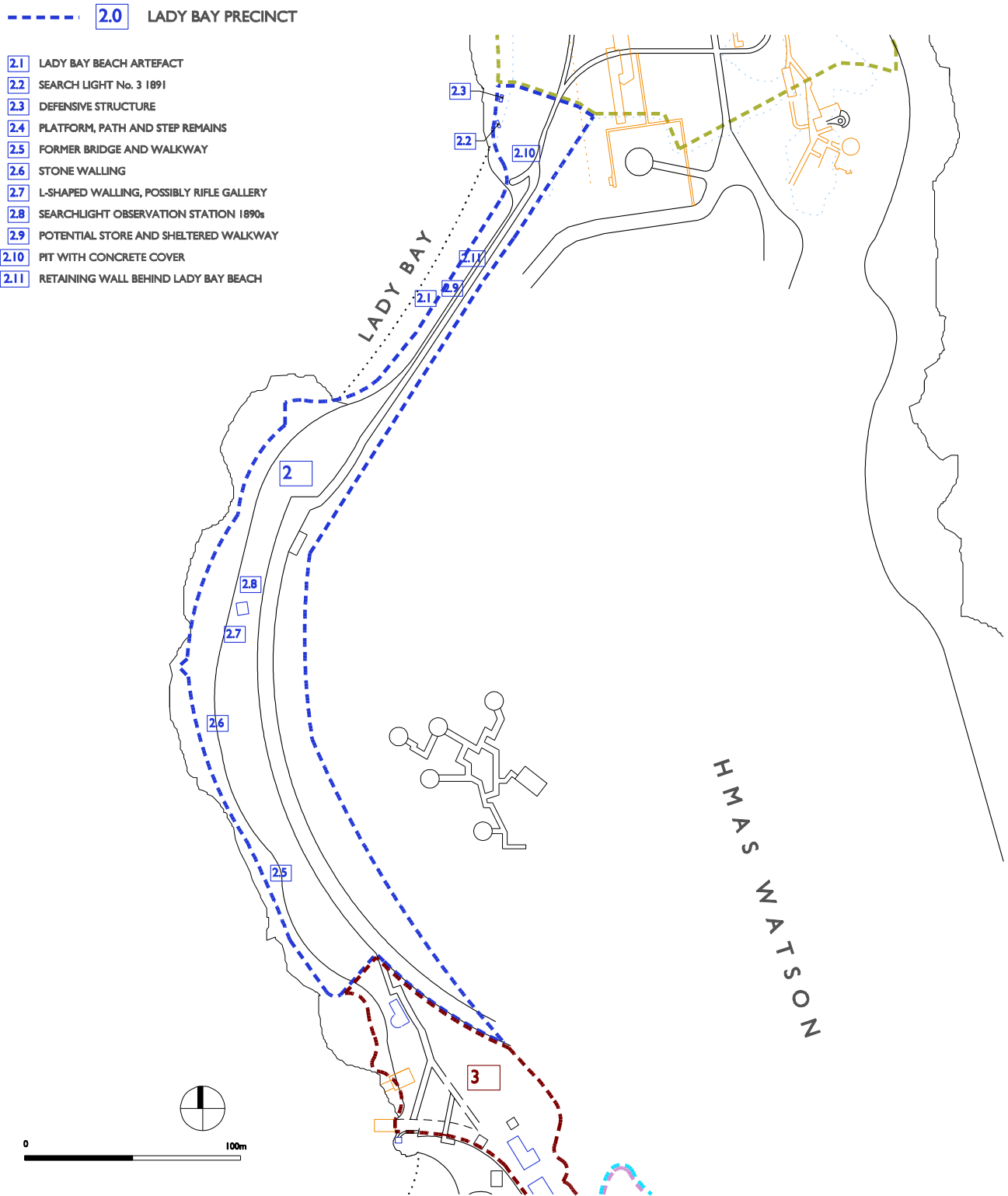


Figure 3.30. Sketch Plan of Precinct 2 Lady Bay. GAO Heritage Group 2007.

The concrete path travels south of Lady Bay and terminates at the northern end of the access road, which originally linked along the western end of the headland but now is severed by the boundary between the National Park and HMAS Watson.

There is an individual Inventory Sheet for the Lady Bay Beach Precinct [IS 2.0] in Volume 2 of this CMP.

There are a number of historical structures or archaeological elements in the Lady Bay Precinct. These are (moving south to north):

- Platform, path and step remains [2.4]
- Former bridge and walkway [2.5]
- Stone walling [2.6]
- L-shaped (rifle) walling [2.7]
- Searchlight observation station [2.8]
- Possible former store and sheltered walkway [2.9]
- Artefact on beach [2.1]
- Retaining wall behind beach [2.11]
- Pit with concrete cover [2.10]
- Searchlight No 3 [IS 2.2]
- Defensive structure [2.3]

Searchlight No 3 [Item IS 2.2] has its own Inventory Sheet in Volume 2. The remaining items are given a brief description in the Archaeology Table in Volume 2.

3.5.2 Views and Vistas Inner - Lady Bay Precinct

The notable views and vistas for the Lady Bay Precinct are:

1. Glimpses out to Sydney Harbour framed by native vegetation (See Figure 3.27)
2. View down to the Beach from the current walkway
3. Views to the retaining wall behind the Beach (although somewhat obscured by overgrowth)
4. The views out from the defensive structures (particularly the searchlight emplacements and rifle walls) out to the Harbour are important for their interpretation but are currently overgrown.

3.5.3 Structures and Historical Archaeological Remains

There appears to have been a series of walkways [2.4] and small bridges [2.5] along the cliff edge south of Lady Bay Beach connecting various features including rifle walls, viewing areas and a Searchlight Observation Station [2.8], which is just below the recently constructed amenities block on the walking track (and former access road). The

searchlight remains are partially excavated out of the rock and consist of reinforced concrete room built onto the adjacent defence wall. The structure has a flat roof and a doorway on the south wall. Gojak suggests that the form and construction of the remains indicate that it was erected as part of the 1890s searchlight construction program contemporary with Searchlight No. 3 [IS 2.2] to its north (above Lady Bay).

The grassy area behind the cliff top-walking trail is likely to contain remains of four buildings, possible barracks or work rooms shown on a post WWII plan of the area (Longworth and McKenzie, Figure No. 6, reproduced in Gojak 1985 research notes). Sandstone edging between the walking trail and the cliff edge may be the remains of small narrow garden beds associated with the buildings.

Immediately behind Lady Bay Beach itself is a retaining wall [2.11], seen in use by the School of Artillery/Gunnery in 1898 (Figure 3.31).



Figure 3.31: Sydney, NSW. 1898. Long course members of the south head NSW School of Artillery/Gunnery , after rafting a field gun to Lady Bay Beach, are shown using shear legs to lift the gun from the beach over the sea wall. Note the retaining wall built onto the natural bedrock (Source: AWM P991.074).

A sheltered walk and small chamber were built in behind it after this photograph was taken, possibly during WWII. The sheltered walk is now filled in and the chamber partially filled.

They now sit between the retaining wall and walking track. A large dish drain running from HMAS Watson is nearby. The wall and drain are visible on the 1920s aerial of the area (see Figure 3.32). The sheltered walk is not visible.



Figure 3.32. Part of the 1929 Aerial photograph showing Lady Bay. Source: DECC.

No. 3 Searchlight [IS 2.2]

On a bluff on the northern end of Lady Bay are the remains of a c1890s searchlight emplacement referred to as No. 3 Searchlight on an 1899 plan. Gojak advised that searchlights appear to have been installed at South Head following the construction of the Engine Room and generator in 1890 and this searchlight was used to sweep the shipping channel from Middle Head to Chowder Bay.¹²⁶ The structure comprises a small flat roofed reinforced chamber accessed by a door and steps on the eastern side of the structure. The location of the pillar mount for the searchlight is still evidenced by a ring of bolts in the centre of the chamber. The structure is in reasonable condition but other than the bolts, no original fittings survive. Gojak advises that electrical services were carried to the emplacement from the Engine Room in square overground conduits. Evidence of these conduits is concealed by the adjacent bushland scrub.

¹²⁶ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.

Just to the north of the Searchlight No. 3 [2.2], are the remains of a chamber cut into the rock accessed by an open passage and steps, with an opening cut through the wall on the harbour side [2.3]. It is very similar to Searchlight No. 3 but is missing its roof. There is a concrete water tank on the northern edge. A number of pipes and conduits protrude from the cliff face below the structure. These are likely to be contemporary to the searchlight.

3.6 Precinct 3 - Camp Cove

3.6.1 Precinct Description and Landscape Analysis

The landscape character of the southern part of the Camp Cove Precinct is of a leafy gully. It is cool and enclosed with dappled shade and glimpses of water. The tall canopy of Coral trees gives dappled shade to a weedy understorey. Native species include Figs, Livistona and Pittosporum. There are also weed species: Nasturtium, Morning glory, and Wandering Jew. An Aboriginal site was recorded in the area in 1985 and 1989, but could not be located for this study.

The Constables Cottage is set within ground surfaces of lawn and gravel with stone and brick edging. Plantings include Monstera, Philodendron, Cordyline, tree ferns, Callistemon and Agapanthus.



Figure 3.33. Camp Cove viewed from the southwest. The Constables Cottage is the building with the grey roof in the lower central portion of the photograph. October 2006



Figure 3.34. The walking track north of Camp Cove passing through stands of tall Coral trees. October 2006

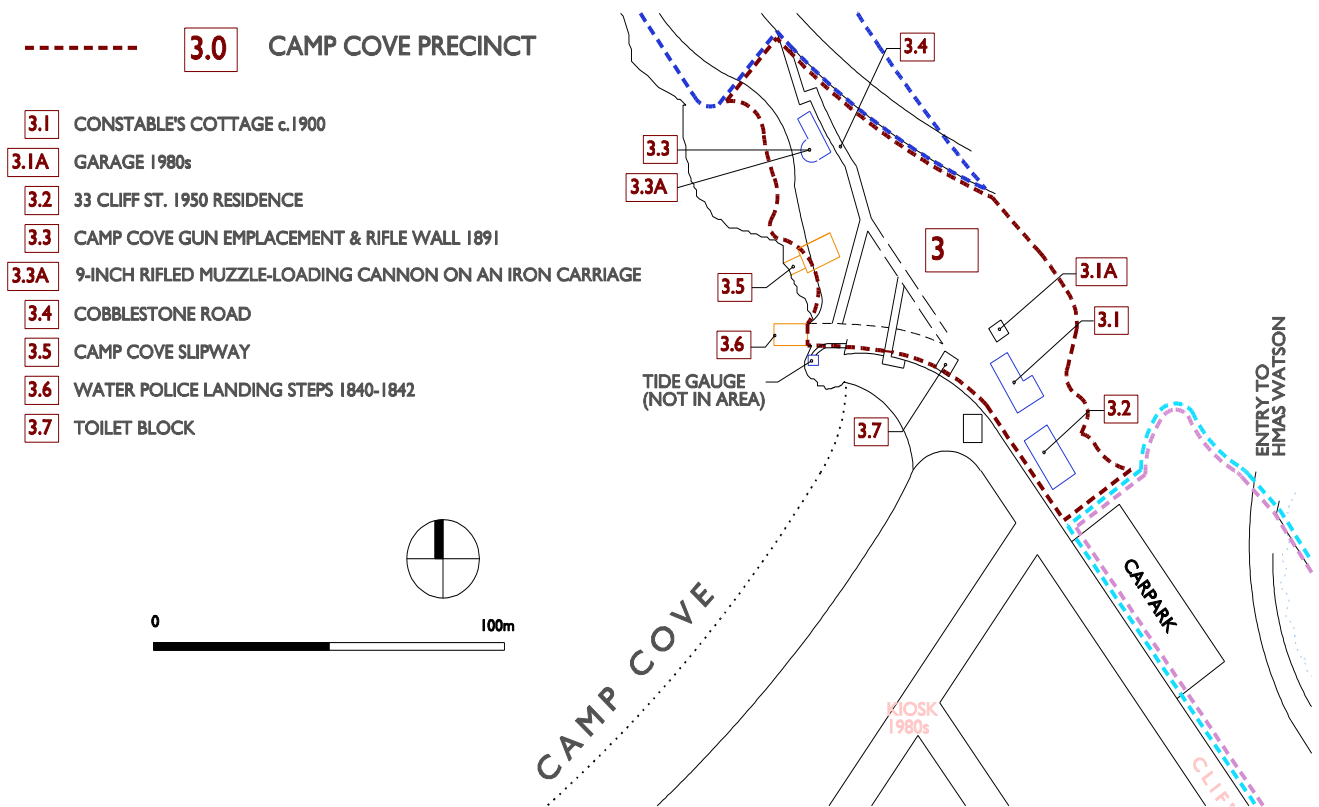


Figure 3.35. Sketch plan of Precinct 3 Camp Cove GAO Heritage Group 2007.

Beyond this area the hillside is exposed, dry and barren of most vegetation. The path cuts through open expanses of lawn with large patches of weeds. A stone border to the lawn indicates a previous garden along the cliff edge. Species include Mallee Eucalypts, Melaleuca, and scattered Phoenix.

The origins and character of the heritage assets within the National Park at Camp Cove reflect the range of activities that have occurred at Camp Cove since Governor Phillip camped overnight at the beach in January 1788. Such activities include use by the Water Police, the location for a life boat, military use, and recreation, which is its current and most obvious use. The character of the built assets reflects the fact that Camp Cove is the interface between the National Park and residential Watsons Bay.

There are a number of buildings, landscapes, structures and archaeological elements in the Camp Cove Precinct. These are:

- Green Point Cottage, garage and garden [IS 3.1]
- 33 Cliff Street and garden [IS 3.2]
- Camp Cove Gun Emplacement [IS 3.3] including 9-inch cannon [3.3A]
- Cobblestone Road [IS 3.4]
- Camp Cove Slipway [IS 3.5]
- Toilet Block [3.7]

The Water Police Landing Steps [3.6], Jetty and Tide Gauge are not within NPWS land and are not covered by this CMP, although there is a brief description of these elements under 3.6.3 below.

3.6.2 Views and Vistas - Camp Cove Precinct

The notable views and vistas for the Camp Cove Precinct are:

1. Views along the cobblestone road [3.4] with the rifle walls to the west (Figure 3.38).
2. View out to the Harbour from Gun Emplacement [3.3] (Figure 3.39).
3. Visual connections between the landing steps [1.6] and the slipways [1.5]
4. Views from the site of former water police buildings [2.1] to the beach and former jetty site [1.6] - now somewhat obscured by vegetation.
5. Views from the Harbour and Camp Cove to the rifle walls above the northern end of the Cove have great interpretive potential but are currently obscured by the grove of

trees (mostly Coral Trees). Similarly the significance of the rifle walls would be more understandable if views out to the Harbour were improved.

3.6.3 Buildings and their Settings – Camp Cove

Constables Cottage [IS 3.1]

Nestled into the cliff in the southern part of the levelled Water Police area is a building, now referred to Constables Cottage. It was constructed between 1895 and 1903 as semi-detached residences for married military staff. In the 1950s the two residences were combined with doors pushed through the party wall in the main building and rear service wings. Other alterations were made to the buildings and it is now used as short let holiday accommodation. Constables Cottage is a single storey timber framed hipped roofed cottage fronted with a simple posted skillion verandah. The interior of the main part of the cottage's walls and ceilings are lined with the original fibrous plaster sheeting finished with cover battens. The cottage's details, linings, moulding and features are modest and typical of a simple Federation era cottage. The twentieth century changes and additions are typical of the time and are undistinguished except for the unusual pivoted wall vents in the rear, glazed passage. Overall the cottage is in excellent condition and the c1900 sections retain much of their original finishes and linings.

The rear area behind the cottage is covered by large concrete slabs, with wide spoon drains at the foot of the rock face. Of interest is a pair of brick external WCs let into the rock face of the cliff at the rear of the cottage. The WCs are in good condition with remnants of earlier services and the southern WC now houses the hot water cylinder. The cottage has an undistinguished low set garage added by NPWS.



Figure 3.36. Constables Cottage. October 2006.

33 Cliff Street [IS 3.2]

Immediately south of Constables Cottage is a mid-twentieth century residence at 33 Cliff Street. It is a single storey face brick residence with metal tiled roof and timber windows constructed sometime in the late 1950s on a site previously occupied by a late 1890s timber residence constructed for Staff Sergeants. The 1950s residence is positioned tight on its block with a single car carport on its northern end. The residence is in reasonable condition, is aesthetically undistinguished and is generally typical of its period with similar residences throughout Sydney's suburbs.



Figure 3.37. 33 Cliff Street during road and stormwater construction works undertaken by Woollahra Council. October 2006.

3.6.4 Structures – Camp Cove

c1880s Cobblestone Road [IS 3.4]

The access road curves east and just before it enters HMAS Watson, the walking path branches off and leads to Camp Cove. As the walking path descends to Camp Cove, it coincides with the c1880s cobblestone road, which was constructed to connect the landing area and the Water Police at Camp Cove to South Head and the Hornby Light. The road was excavated out and benched into the side of the cliff in a curve below the 80-pounder Battery. It was paved with sandstone blocks to assist travel as it negotiated the steep rise from Camp Cove. The road appears to have degenerated into a track by the early 1930s. A good length of the sandstone pavement remains and is in use now as part of the walking

bath around the tip of Inner South Head.¹²⁷ The road is flanked on the east by large stone block retaining and rifle walls.



Figure 3.38. Looking north up the hill along the c1880s cobblestone road [IS 3.4] connecting the landing area and the Water Police at Camp Cove to South Head and the Hornby Light. The stone rifle walls flank the road on the east (right). October 2006.

Gun Emplacement [IS 3.3]

Immediately on the west side of the road before Camp Cove are the remains of a gun emplacement excavated out of a rock bluff with low stone blocks walls. The pit currently accommodates a 9-inch RML Mark V gun (on a carriage) relocated from elsewhere at South Head. The emplacement consists of a U-shaped pit which faces west, accessed from the north by steps and a shallow open passage. Gojak noted that the pit had an unfinished appearance, there was no evidence of gun mounting and that the pit has no associated buildings or magazines.¹²⁸ The structure suggests that it was part of the late nineteenth century construction programs. Gojak iterates that there is some evidence to indicate that a 68-pounder gun was mounted at Camp Cove in 1891. The pit is associated with three narrow open passages, which lead from the road and pit to the base of the bluff and end at a sandstone block rifle wall. These features may indicate that the structure was abandoned and reused for another purpose. The pit and its associated structures are weathered with little evidence of original finish on the stonework but are in reasonable condition and are structurally stable. As the remains are close to the main walking path they are subject to intense visitor activity and the weathered surfaces are starting to be scoured.

¹²⁷ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.

¹²⁸ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.



Figure 3.39. Looking south over the nineteenth century gun pit with Camp Cove in the distance. A 9-inch RML Mark V gun (on a carriage) relocated from elsewhere at South Head is housed at the pit. October 2006.

Slipway (Site of Former Boat Sheds) [IS 3.5]

Just before the end of the walking path at the north end of Camp Cove, is the site of two former boat sheds at the waters edge. A lifeboat shed was erected in the 1850s subsequent to the wrecking of the *Dunbar* and *Catherine Adamson* and a second boat shed was added in the 1890s to serve the Permanent Artillery. The sheds themselves no longer stand. Gojak suggested that the sheds were still standing in the 1950s, but demolished after this time.¹²⁹ Their location is evidenced by the level platforms at the water's edge excavated out of the cliff and other remains including slipway iron rails, sandstone base blocks and post holes.

Landing Steps [3.6]

At the northern end of Camp Cove are the remains of the Water Police landing steps, which are linked back to Cliff Street at Watsons Bay by a stone retaining wall. The three landing steps themselves were constructed in the 1840s of dressed sandstone blocks with a plinth on a low rock shelf, which jutted out from the headland. The finer work for the stone steps contrasted with the retaining wall, which sweeps south from the steps to Cliff Street. The retaining wall was constructed in the late nineteenth century of more rough coursed blocks that become more uneven closer to Cliff Street. The stone steps now are well weathered and have been loosened by water and tidal action with some lost blocks but the layout is still evident. The retaining wall is also weathered but is in reasonable condition and is still stable. The upper courses in the half closer to Cliff Street are in poor condition and some stones have been dislodged.

¹²⁹ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.

Jetty and Tide Gauge (not within the study area)

A wide timber jetty was constructed out into the Cove on the line of the stone steps, in the late nineteenth century, along with the stone retaining wall. The jetty was twice as long as the current timber walkway and stood until the 1970s when it seems to have been completely taken down as there is no evidence of it surviving. In 1931 the existing timber Tide Gauge on its concrete base was constructed at the end of the low rock shelf. The building initially was located hard against, and was accessed, from the nineteenth century jetty. The current timber framed walkway was constructed after the jetty was demolished to retain access to the Tide Gauge. The Tide Gauge is housed in a simple painted weatherboarded building with a gabled roof clad in corrugated asbestos. The Tide Gauge building is in reasonable condition.



Figure 3.40. Looking southwest over Camp Cove with the remains of the Water Police slipways (site of former boatsheds, landing steps). The Tide Gauge and its walkway are the middle ground.

Other structures at Camp Cove within the National Park includes the brick toilet block [3.7] constructed in the late 1940s. The adjacent timber landing and stairs that access the beach over the stone retaining wall are outside the Park boundary, but were constructed by NPWS and are maintained by DECC. The toilet block is a small rectangular gabled roofed building, which was originally constructed to serve the Defence Forces, but now is solely for public use. The block and its structure are in reasonable condition but its facilities are in need of upgrading.

Immediately to the east of Camp Cove is a level area that originally accommodated buildings for the Water Police, which occupied the site from 1840s. This level area is backed by a substantial cliff rock face. High sandstone retaining walls and rifle walls were constructed between the cliff rock outcrops. The walls survive and are in good condition.

They still display their rock-faced dressed surface and rifle slots. The area in front of the walls was once cleared but is now seriously choked with weeds and large Coral Trees



Figure 3.41. View of the north end of Camp Cove with the brick toilet block constructed in the late 1940s on the left, the late nineteenth century stone retaining wall within the National Park. The timber landing and stairs to the beach are outside the park. October 2006



Figure 3.42. Part of the 1929 Aerial photograph showing Camp Cove in the bottom left, the timber jetty at its northern end, Constable Cottage to the east and the two timber boat sheds further north. The rifle walls are obvious, as is the c1880s road (indicated by the double-headed white arrow) from Camp Cove to the Hornby light. Source: DECC

3.6.5 Historical Archaeology – Camp Cove

No additional historical archaeological elements were recorded in this area during the preliminary field survey. There may be evidence of structural footings and artefact deposits associated with the Cliff Street residences and the former use of the site by the Water Police, although the potential for this is fairly low as the sites have been subject to extensive work in recent years.

There may be evidence of drains and other services associated with the emplacement although the research potential is likely to be minimal. In general, the archaeological potential of the Camp Cove precinct is likely to be low. The significance of any items located will vary depending on their association and condition.

3.7 Precinct 4 - Gap Bluff

3.7.1 Precinct Description and Landscape Analysis

The Gap Bluff area makes up the south half of the National Park at South Head abutting the southern boundary of HMAS Watson. Unlike the north part of South Head, the Gap Bluff area was relatively underdeveloped until the early twentieth century. From that time, it (along with the area now occupied by HMAS Watson) was almost exclusively used by the Army first for the Artillery Practice Battery and its Workshop from 1895 onwards, the School of Artillery/Gunnery from 1912, followed by the Radar School and the Army's National Service depot from the 1950s. Gap Bluff was transferred from the Defence forces to the NPWS in 1982.

The Gap Bluff area is roughly oval in shape with an arm, stretching north, and bordered on the west by Cliff Street. The area is edged to the north by HMAS Watson and on the east and south by the 40m towering cliffs, which rise dramatically out of the South Pacific Ocean. The heart of the area is sited on a series of broad vegetated terraces falling towards the west. No Aboriginal sites have been recorded in the Gap Bluff Precinct.

At the height of its use from the 1950s to 1980s the Upper Gap Bluff area [4B.0] accommodated a dense array of masonry and timber structures covering the mostly level north-eastern part of the area interlinked by numerous roads and paths (see Figure 3.43).

Although many former building sites were reclaimed and concealed by revegetation after the site was transferred to the NPWS in the 1970s, the entire precinct contains a wealth of

archaeological evidence and a number of standing buildings from both the late 1900s School of Artillery/Gunnery [4A.4, 4A.5, 4A.6] period and the later, more intensive use during and after WWII.

A basic and preliminary archaeological survey undertaken for this CMP identified a number of substantial structural remains and large areas of debris from the demolition of the buildings shown in Figure 3.43. Despite the heavy vegetation cover, it is still possible to see the various terraces and understand the arrangement of building, roads, equipment and terraced gardens. The development of the military landscape of training facilities from the 1870s to the 1980s is still readable although the sense of openness and connection between the different areas has been obscured.

The eastern edge of Gap Bluff includes a well-maintained, narrow stretch of coastal heath. It has full sun and is exposed to strong winds. The walking track is cut into the rock and winds around boulders close to the cliff edge. Low heath species in the area includes *Dianella* and *Lomandra*.

The site of the rows of former timber barracks in Upper Gap Bluff [4B.0] is heavily overgrown with tall shrubs and dense groundcovers. Paths terminate in tangles of vines and branches, and weeds emerge through patches of bitumen. The highly disturbed landscape has benefited introduced species more than the indigenous coastal heath. Phoenix palms have become a management issue due to spreading of seed by birds. Other weeds include *Oleander*, *Asparagus fern*, *Kikuyu grass*.

In the Lower Gap Bluff precinct [4A.0] is an avenue of Norfolk Island Pines, together with expanses of lawn edged in bushland, which includes *Banksia*.

Along the Cliff Street edge of Gap Bluff is a thick vegetation screen of Coral trees, Phoenix palms, *Banksia*, Fig and Brush Box. Weeds in this area include *Lantana* and *Asparagus fern*. There are a number of buildings and historical archaeological elements in the Gap Bluff Precinct [IS 4.0].

In the Lower Gap Bluff Precinct [4A.0] Inventory Sheets are provided for:

- Officers' Mess and Garden [IS 4A.1]
- Armoury [IS 4A.2]

- Cottage / former Workshop [IS 4A.3]
- Site of the former 1912 Barracks [IS 4A.4] including remaining Latrine [4A.4A] and footings of the two barrack buildings [4A.5 and 4A.6]

and the following elements are covered in the Archaeology Table in Volume 2

- Water Tank [4A.7]
- Cement Slab [4A.8]

In the Upper Gap Bluff Precinct [4B.0] an Inventory Sheet is provided for:

- National Parks Lookouts [IS 4B.1]

and the following elements are covered in the Archaeology Table in Volume 2

- Practice Battery [4B.2]
- Concrete pad [4B.3]
- L-shaped shelter wall [4B.4]
- Small concrete plinth [4B.5]
- Large dump of demolition rubble [4B.6]
- Various rings and bolts in bedrock [4B.7]
- L-shaped shelter wall [4B.8]
- Small cement slab (paving) [4B.9]
- Small cement slab – 2 roomed structure [4B.10]
- Curved cement slab (paving) [4B.11]
- Cement slab (structural) [4B.12]
- Terrace garden, various features [4B.13]
- Possible dump [4B.14]
- Small brick building [4B.15]
- Steps and section of pathway [4B.16]
- Small telephone or telegraph pole [4B.17]



Figure 3.43. Part of a photograph taken of Gap Bluff showing the Royal Australian Navy radar training school in 1951. The buildings on the left at the top of the cliff are the Action Information Training Centre with a type 293 radar attached. Directly across the road are the maintenance and victualling areas with three mess buildings next to them. In front is the senior sailors mess, in the background is the Ratings mess hall and cook house and in between is the Ratings wet and dry canteen. The large buildings in the foreground are the Ratings living quarters and the small square building in front of them is the inflammable store. (Source: Australian War Memorial website www.awm.gov.au. Ref: P03815.006)

3.7.2 Views and Vistas - Gap Bluff Precinct

The notable views and vistas for the Lower Gap Bluff Precinct [4A.0] are:

1. View at entrance gates off Military Road up the Norfolk Island Pine Avenue
2. View looking down the Norfolk Island Pine Avenue
3. View from the end of the Norfolk Island Pine Avenue to the open space (former Artillery Barracks site [4A.4])
4. View from the Officer's Mess [4A.1] over the Officer's Mess Garden to the Harbour
5. Axial vista within the former Artillery Barracks site [4A.4] aligned on the toilet block [4A.4A]

The notable views and vistas for the Upper Gap Bluff Precinct [4B.0] are:

6. Views from the National Park Lookouts [4B.1] to the Ocean
7. Views from Upper Gap Bluff generally to the Ocean
8. Views from Upper Gap Bluff back to the Harbour

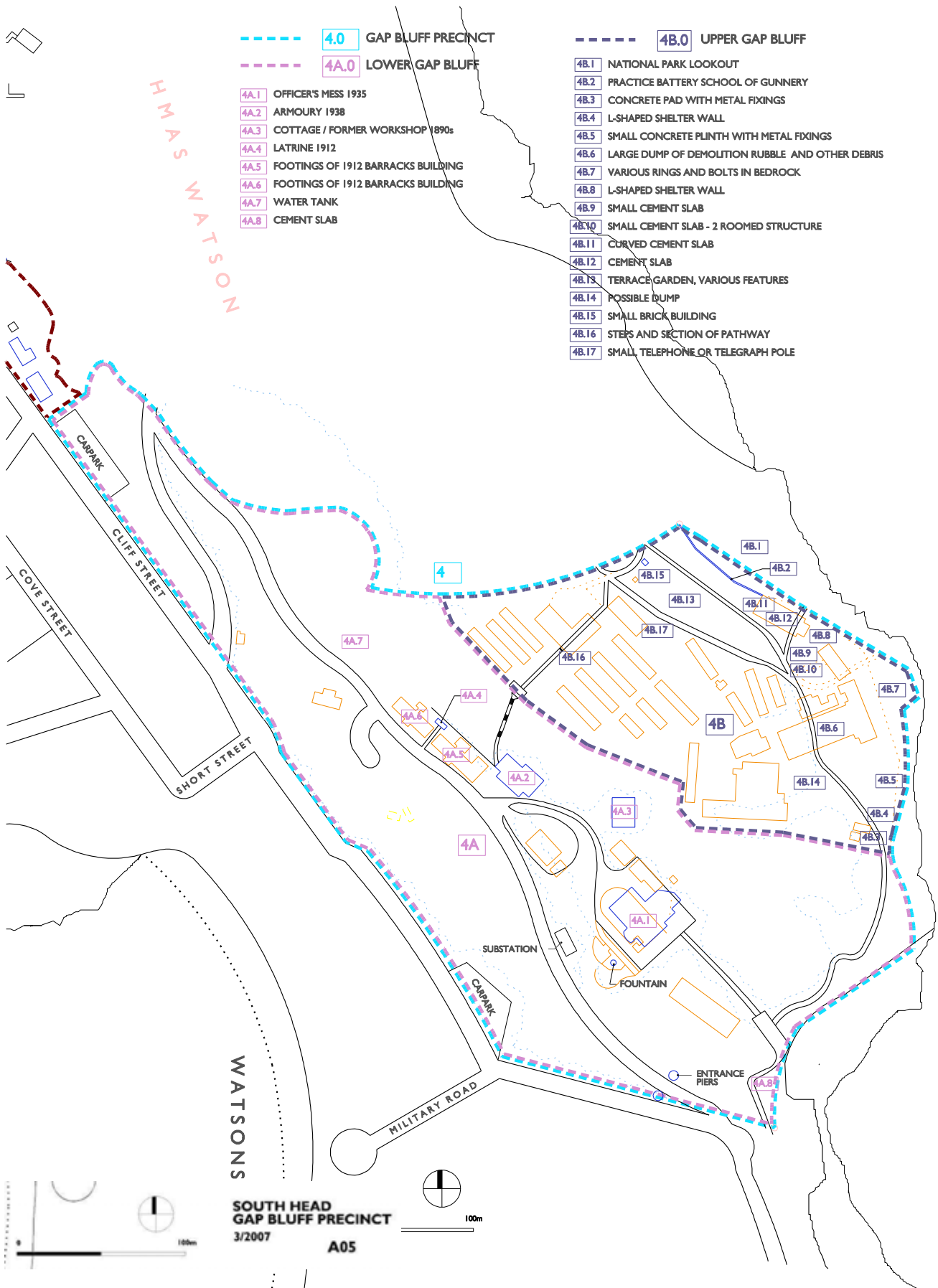


Figure 3.44. Sketch plan of Precinct 4 Gap Bluff. GAO Heritage Group 2007.

3.7.3 Buildings and their Settings – Gap Bluff Precinct

Officers' Mess and Garden [IS 4A.1]

The most prominent surviving building is the former Officers' Mess to the south of the area set slightly back from the western edge of the level area and sited high enough to look west over the trees to Watsons Bay and the harbour. The Officers' Mess is a large impressive two storey building. It was constructed in 1936, in the "Inter-War Functionalist" style and features an asymmetrical and horizontal composition with severe presentation and little ornamentation. The building is in good condition, and is currently occupied by staff of the Gap Bluff Centre. The original 1936 building (See Figure 3.3) was altered and added to twice, first in the 1950s with the addition of a pitched roof (Figure 4.4), and more recently in the 1990s with the construction of an extension to the rear. The exterior of the Officers' Mess was rendered at some point after its construction, and the 1990s extension/addition copied this painted and rendered finish. The interior of the original Officers' Mess is spartan but impressive and features extensive use of good quality 1930s timberwork, shown off by the impressive timber floors in the main ground floor rooms.

Large asphalted areas for driveways and parking surround the building and are flanked by dense vegetation. There is a simple garden in a clearing to the west of the building centred on a small fountain with a stone "crazy paved" path and with remnant walling (Figure 3.5).



Figure 3.45. *The exterior of the Officers' Mess from the southwest with the verandah in the foreground, the 1930s block behind (with its 1950s roof and the 1990s rear extension on the left. October 2006*

Former Workshop [IS 4A.3]

North west of the Officers' Mess is a small single storey, timber framed gabled building. The building was the first in the Gap Bluff area and was originally constructed as the workshop for the Practice Battery erected in 1895 on the top of the nearby eastern cliffs. The Workshop has been comprehensively altered and is now used as a residential cottage for National Parks staff.

The building is well presented within a small clearing in the revegetated bush alongside the road, which follows part of the alignment of the 1890s road connecting the workshop northwards to South Head. The road now continues on to the Officers' Mess. The rear of the building is benched into the hill, backed by a rough stone retaining wall. The building's site in the hill is protected by a wide, open stone drain, which wraps around the rear of the building at the top of the retaining wall to catch ground water and drain it down the north side of the building into the site's stormwater system. The revegetated bush now contains substantial trees. Some of the trees are perched precariously on top of the retaining wall with one large tree collapsed recently across the back of the site.



Figure 3.46. The front of the Workshop (now residence) from the west. October 2006

The Armoury [IS 4A.2]

The access road in front of the Workshop continues to the north-west and connects to the former Artillery Store constructed in 1938, now referred to as the Armoury. The Armoury building shares the Officers' Mess alignment (which was the alignment of most of the School of Artillery/Gunnery buildings) roughly parallel to Cliff Street whereas the workshop has its own tangential alignment. The Armoury is a wide and long single storey cavity brick building with a low hipped corrugated "Colorbond" steel roof. The construction of the

building as a utilitarian store is typical for its time. In the late 1980s the building was considered to be one of the most intact survivors of the School of Artillery.¹³⁰ However, in the 1990s the building was comprehensively altered as a function room as part of the works for the Simon University School of Business, at which time the building's interior was gutted and relined. The area at the rear of the building is drained with spoon drains cut into the rock shelf. Revegetated bush grows close to the top of the retaining wall and its large trees overhang the building. A set of concrete stairs rises north of the Armoury up the hill and links with a walking path to the cliffs to the east.



Figure 3.47. The exterior of the Armoury showing its end wall and the 1990s verandah looking from the southeast. October 2006.

3.7.4 Historical Archaeology – Gap Bluff

The Gap Bluff Precinct (both Upper and Lower) have high archaeological potential. Little historical archaeological assessment has been undertaken in this area to date. Archaeological evidence in this area has high potential to add to our understanding of the military operations carried out in this area and could be used as a focus for site interpretation in the future.

A number of individual archaeological elements have been located during fieldwork for this CMP and are listed in the Archaeology Table in Volume 2. Many of them could not be identified without further documentary research and physical investigation, but are likely to relate to the operation of the 1870s School of Artillery/Gunnery as well as the WWII and post WWII operation of the Radar School (see Figure 3.48). A number of smaller archaeological elements associated with operation of the batteries and searchlights spread

¹³⁰ McNamara Soder Associates 1989.

around the peninsular are likely to be present (such as bases for DRFs) and would add to our understanding of how the larger structural elements worked.



Figure 3.49. The RAN Radar Training School, looking south towards The Gap, c 1944.

Elements located during the preliminary fieldwork included cement slabs, footings and areas of demolition debris associated with former buildings, cement slabs and metal fixings for equipment, garden beds, dry-stone retaining walls, drains and shelter walls. Many of these could not be specifically identified without further research and/or field survey.

Other potential archaeological evidence includes: footings, services, artefact deposits, demolition rubble, garden features, equipment platforms, fixings (for the types of activities shown below in Figure 3.49), rock-cut features, evidence of fence lines, terraces and walls and the remains of “Engine Room” shown on 1890 Telephone System Chart (reproduced in Mider 1998).



Figure 3.50: Sydney, NSW, 1898. Members Of The Long Course Of The NSW School of Artillery/Gunnery at South Head In The Process Of Erecting Shear Legs On A Cliff Top (Source: AWM P991.076).

Site of 1912 Barracks [IS 4A.4]

North east of the Armoury, the School of Artillery/Gunnery /Artillery originally featured a pair of large two storey brick barracks constructed in 1912. A small hipped-roof Latrine was constructed at the same time between, and to the rear, of the two buildings. The larger buildings were demolished and are now only evidenced by the wide grassed area in front of the latrine and some exposed footings [4A.5 and 4A.6]. The latrine [4A.4A] still survives tucked in against the hill backed by a high, buttressed concrete retaining wall. The latrine is a single storey brick building on concrete slab, roofed with a rafter and collar tie timber frame and sheeted with corrugated “Colorbond” steel sheet. In the late 1980s the building had corrugated asbestos roof sheeting, which was replaced by the current “Colorbond” sheet.

The building is in reasonable condition, although the surface of the bricks on all elevations are weathered and have lost their case-harden faces. The current setting of the latrine, now standing solitary at the rear of the large open area created by the demolition of its larger neighbours accessed by a straight concrete path and fronted by a small garden, is very different to its original enclosed setting.



Figure 3.48. Part of the 1929 Aerial photograph showing Gap Bluff. The former Barrack buildings are clear, located in the north of the area and the Workshop is in the centre of the view with a vague line indicating the path to the Practice Battery in the northeast (top right). A wall bounds the area along Cliff Street. The remaining latrine is shown by the arrow. Source: DECC

3.8 Precinct 5 - Green Point

3.8.1 Precinct Description and Landscape Analysis

Green Point has a different character to South Head and its own suite of features. The headland is surrounded by the harbour with a low hill at the centre. Unlike South Head, which features large dramatic sandstone cliffs and outcrops, Green Point consists of a weathered clay hill and is low and undulating circled by a wide rocky reef. Green Point is a pleasant, shady area of Coral Trees on grassy slopes. Rocky outcrops occur on the slopes and flatten out to tidal platforms at the base. Native shrubs include Westringia, Banksia, Acacia, Lomandra, Pittosporum. Weeds species at Green Point include Lantana and Honeysuckle.

No Aboriginal sites have been recorded in the Green Point Precinct.

The origins and character of the building and structures within the Precinct reflect the different activities that have taken place at Green Point including military and navigation use, as a memorial site, and for recreation, which is its current and most obvious use. Many aboveground defence period features were removed from Green Point by the local council when the area was transferred out of military ownership and access to underground Submarine Firing Station was secured.

The most prominent surviving feature at Green Point is the former Officers Quarters [[5.1] sited adjacent to the rock outcrop at the apex of the hill. The building is now referred to as Green Point Cottage. As with Constables Cottage, it was constructed between 1895 and 1903 as a residence for military staff. The original cottage, particularly the interior, was altered in the 1960s. Other alterations have been made to the cottage and it is now used as holiday accommodation.

There are a number of structures in the Green Point Precinct [5.0]. Inventory Sheets are provided for:

- Green Point Cottage (33 Pacific St) [IS 5.1]
- Arthur Phillip monument [IS 5.2]
- 1850s navigation obelisk [IS 5.3]
- Submarine Miner Firing Station [IS 5.4]
- Remains of Searchlight No 4 and possibly boom net winch house [IS 5.5]

The following elements are covered in the Archaeology Table in Volume 2:

- WWII observation post [5.6]
- Group of small concrete blocks and iron fixings (possibly related to WWII boom net) [5.7]
- Partially exposed concrete slab above obelisk [5.8]
- Rectangular pen cut from rocky foreshore [5.9]
- Cement block [5.10]
- Cement slab [5.11]

3.8.2 Views and Vistas Green Point Precinct

The notable views and vistas for the Green Point Precinct [5.0] are:

1. Views from Green Point generally out to the Harbour particularly from the Navigational Obelisk, the Arthur Phillip Monument and the military structures.
2. View from the Green Point Cottage [5.1] out to the Harbour
3. Views between Green Point and the Camp Cove Precinct – in particular to the Rifle Walls behind the Camp Cove Gun emplacement – although these are now obscured by plantings.
4. Views associated with the navigational functions of the Obelisk [5.3] and the other obelisks at Obelisk Bay, Georges Head, Middle Head and Parsley Bay.
5. The axial vista qualities of the Arthur Phillip Memorial and associated steps.
6. The view between Green Point and Georges Head across the Harbour is important in the interpretation of the site of World War Two Anti-Submarine and Torpedo Boom Net and associated archaeological features.

3.8.3 Buildings and their Settings – Green Point

Green Point Cottage [IS 5.1]

Green Point Cottage is a single storey timber framed cottage. It is modest but has Arts and Crafts pretensions evidenced by its good-sized pitched roof featuring distinctive decorative vented gables and deep bargeboards. The main cottage is fronted with a wide simple posted skillion verandah, now enclosed. The cottage's surviving details are modest and generally typical of a simple Federation era cottage as well as being similar to the former workshop at Gap Bluff. The cottage's interior has been comprehensively refurbished. The work does not appear to have altered the room layout or door locations. Overall the cottage is in excellent condition and the c1900 exterior retains much of its original finishes and linings.

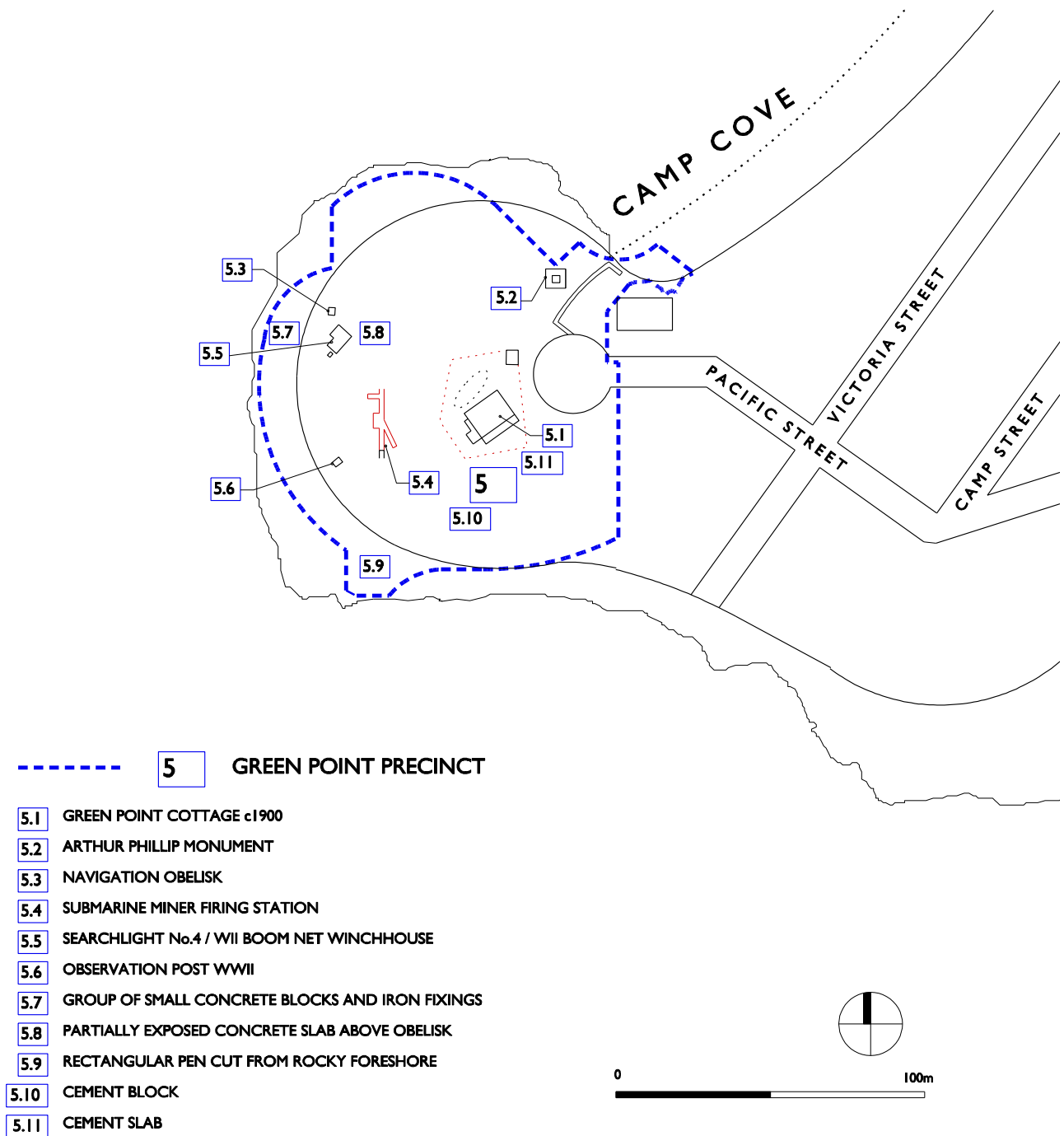


Figure 3.51 Sketch plan of Precinct 5 Green Point. GAO Heritage Group 2007.

The areas immediately around the cottage are covered by a number of concrete slabs. The rear of the cottage is nestled into the rock outcrop, which is the highest point of the peninsula. The cottage and its garden are bounded on the front by a recently erected painted picket fence which is in good condition, a cyclone chain mesh fence and, at the rear, by a tall lapped and capped hardwood paling fence which is collapsing in some areas. The cottage has a undistinguished low set garage added by NPWS.



Figure 3.52. Green Point Cottage looking from the northeast. October 2006.

3.8.4 Structures

Submarine Miners Firing Station [IS 5.4]

The Submarine Miners Firing Station located to the west of Green Point Cottage, occupies most of the slope of the hill and is aligned roughly north south. Visible above ground evidence of the station is minimal as most of the infrastructure is below ground. The station consists of two underground chambers, a central north south passage about 50m long with a subsidiary passage running 40m to the southeast before it dives beneath the water line. Denis Gojak suggests that this passage was to take electrical cables.¹³¹ A circular shaft now capped with concrete provides access. The station was constructed in late 1870s as part of the defensive works overseen by James Barnet. It was to operate the electronic minefield across the harbour and was used until 1903 when it was abandoned.¹³² The station was sealed in the late 1960s when the main entrance at the southern end of the main passage was blocked. Gojak visited the site in 1985 and reported that all the exits to the Submarine Miners Observation Station had been sealed since 1967, which was causing damp problems (he recommended the introduction of ventilation to combat this). He reported that while there had been no recent vandalism, due to the site being sealed off, there was a lot of litter from the 1960s.¹³³

¹³¹ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.

¹³² The Submarine Miners Depot was located at Georges Head. There was likely a lot of communication between the depot and the Submarine Miners Observation Station at Green Point. There is some speculation that the Submarine Miners Firing Station was reused in the 1940s, but this is yet to be confirmed.

¹³³ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.



Figure 3.53. Entrance to the Submarine Miners Firing Station.



Figure 3.54. The current access to the Submarine Miners Firing Station opened for inspection in November 2006. Source: Paul Davies Pty Ltd November 2006



Figure 3.55. Interior of the Submarine Miners Firing Station. Source: Paul Davies Pty Ltd November 2006

1850s Navigation Obelisk [IS 5.3]

North of the remains of Searchlight No. 4 (described under historical archaeology below) is a stone obelisk which is a navigational marker constructed in 1858. The obelisk consists of a simple 3 metre high, tapered shaft of dressed sandstone blocks with chamfered top. The shaft sits on a stepped sandstone base. The obelisk has fair-faced stone and its mortar joints are in good condition.



Figure 3.56. The stone navigation obelisk. The foundations of Searchlight No. 4 are in the foreground. October 2006.

Observation Post [IS 5.6]

To the south of the remains of Searchlight No. 4 and west of Green Point Cottage is a small masonry rectangular block built in the 1940s as an **Observation Post**. Gojak advised that the observation post could have been used to cover the submarine net as a control station for the WWII guns mounted at Green Point.¹³⁴ The block is located on a small stone bluff above the rock reef looking west over the harbour. The brickwork is laid in English bond with a concrete slab floor and roof. The entrance and viewing window have been bricked up, mostly likely by the Council in the 1960s. The block is stable and in reasonable condition despite its exposed location. The external walls are heavily graffitied.

¹³⁴ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p. It is possible that the Observation Post had another use. According to ranger Robert Newtown, it is likely that this structure was built as a station for the marine bomb spotting squads operational 1942–43, and manned by volunteer 16 to 17 year old boys under the direction of a warden. The materials match a MBSS observation post located in Vacluse point at the same time. tow bearings were required to pinpoint the drop point of an aerial mine. Robert Newton, Pers. Comm., January 2007.



Figure 3.57. The 1940s Observation Post. October 2006

Arthur Phillip Memorial [IS 5.2]

The Arthur Phillip Memorial is on the north side of the hill, which commemorates first landing in Port Jackson. The small marble commemorative plaque is now set on a short cement rendered obelisk at the top of a short flight of concrete steps set into the ground.



Figure 3.58. Arthur Phillip Memorial. October 2006

3.8.5 Historical Archaeology – Green Point

Further to the west of the Submarine Miners Firing Station are the foundations of Searchlight No. 4 [IS 5.5] which dates from 1899 and now is evidenced by surviving concrete slabs and strip footings with numerous protruding rusting locating bolts. This may also be the location of the WWII boom net winch house. The remains are positioned in from the low rocky reef just above high water mark. The bolts in the slabs are arranged in four sets for locating machinery and there is a distinctive plinth/base. A grassed rectangular area is boarded by a low kerb within which is the base for a WC. The remains are easy to discern but their condition is reasonable to poor, with the concrete badly weathered in parts and the iron bolts rusting.

A small stone memorial with an interpretative plaque is located alongside and south of the searchlight footings. The memorial was erected in 1995 to record the existence of the WWII Anti Torpedo Boom Net between Green Point and Georges Head. The steel net, its timber piles, dolphins, buoys and floating boom gates were erected in early 1942 to control shipping through the harbour past Sow and Pigs reef. The boom net was dismantled in 1945 with all elements removed except for the two large dolphins. It is not clear if there is surviving evidence of the boom net at Green Point. Further research is required to confirm if the footings in Figure 3.59 relate to the winch as well as searchlight number 4. Three small concrete blocks and some metal loops on the rocky foreshore within the tidal zone may also relate to the net, possibly being a spreader or other fixing point.



Figure 3.59. The foundations of Searchlight No. 4 (possibly also related to the boom net winch) are in the centre of the photograph alongside the memorial, which was erected in 1995 to record the World War Two Anti-Submarine and Torpedo Boom Net. October 2006

Further south of the Observation Post is a rectangular pool [5.9] within the low rocky reef, which encircles Green Point. It lies within the strong north south rock strata but its shape is unusually regular in contrast with the configuration of the rest of the reef, which suggests it may not have been naturally formed. There is no evidence of the creation of the pool or its use, but it may have been associated with the Marine Biological Station at Green Point.

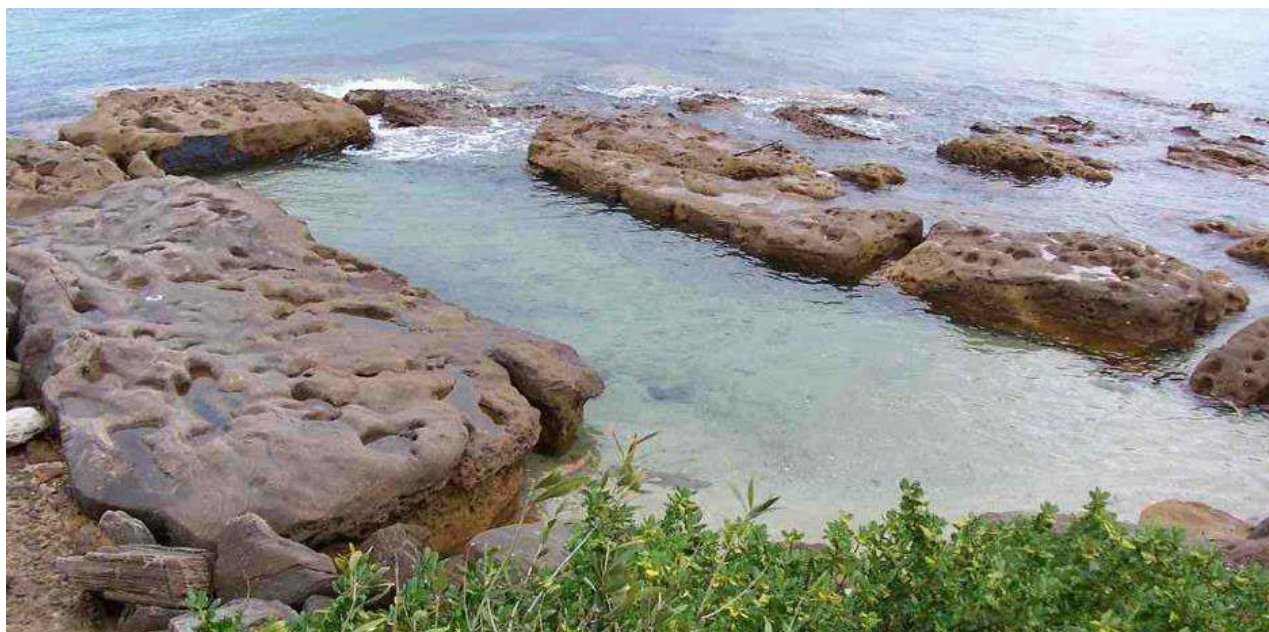


Figure 3.60. The rectangular pool within the low rocky reef. October 2006

East of the pool, also within the rocky reef, is the outlet of the subsidiary passage from the Submarine Miners Firing Station. The passage carried the conduits from the station into the harbour and is formed with large diameter cast iron pipes laid into and parallel to the reef's north south rock strata. The tops of the pipes were covered with rough large aggregate mass concrete, which has now mostly eroded away. The pipes stop at the end of the reef and are able to be inspected at low tide.

A number of gun sites are shown on old maps of Green Point, including an 1874 Battery, three late 1890s Nordenfeld Emplacements and the site of WWII QF 6-pounder 10-cwt twin guns (the QF 6-pounders replaced c1939 QF 3-pounder referred to as the Laing Battery) used for defence against motor torpedo boats and submarines. Gojak noted that a battery had been proposed in 1874 at Green Point but evidence of its construction is circumstantial.¹³⁵ There is no visible evidence at Green Point to confirm that a battery was constructed contemporary with the Hornby guns or where it was located. Gojak questioned whether the battery was ever built, reinforced by the fact that, unlike the elevated and level stone platforms at Inner South Head, Green Point lacks suitable ground for either an open or covered battery inside the defence area.¹³⁶ Three late 1890s Nordenfeld Emplacements were recorded at differing sites at Green Point but there is no visible evidence of their location. However, the 1929 aerial photograph of Green Point shows that there was a

¹³⁵ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.

¹³⁶ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.

number of emplacements on the peninsula at the time and possibly locates the Nordenfeld Emplacements (see Figure 3.60). Gojak noted that in 1985 there was no visible evidence of the QF 6-pounder 10-cwt twin guns at Green Point, which is still the case. Gojak surmised that the configuration of the battery most likely matched the surviving casemated emplacements at Obelisk Bay and Georges Head.¹³⁷ Sydney Fire Command data sheets record a Battery Control Station erected in the 1940s associated with the QF 6-pounder 10-cwt twin guns at Green Point. It was recorded as a three storey square tower and Gojak notes that oral information suggests that it was located on the sandstone outcrops above and north west of Green Point Cottage, which form the peninsula's highest point.

A number of other concrete slabs have been located within the Green Point Precinct but remain unidentified. They are listed in the archaeological table in the Volume 2 to this Stage 1 CMP.



Figure 3.61. Part of the 1929 Aerial photograph showing Green Point with Green Point Cottage (former Officers Quarters) in the centre and the fortifications extant at the time around the headland. Source: DECC

¹³⁷ Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p.

4.0 COMPARATIVE ANALYSIS OF SIMILAR HERITAGE PLACES

This comparative analysis of heritage values between similar heritage places is primarily concerned with the cultural landscape on South Head, which makes up part of the Sydney Harbour National Park and is managed by the NPWS. However the cultural landscape that makes up the South Head peninsula is managed by a number of other stakeholders, including the Department of Defence, Sydney Ports Corporation, NSW Maritime Authority (earlier Waterways Authority), Sydney Harbour Federation Trust and the local council (Woollahra Council). This comparative analysis of heritage values will include discussion of some sites and structures that lay outside the study area but are integral to understanding the significance of the South Head peninsula as a whole. These sites and structures at South Head principally relate to navigation and defence, and include the Hornby Light, Macquarie Lighthouse, HMAS Watson, the Marine Biological Station at Green Point, as well public land (parkland) held by Woollahra Council.

South Head peninsula is one of three prominent headlands marking the entrance to Sydney Harbour; the other two peninsulas are Middle Head/Georges Head and North Head. South Head and North Head are natural defence points guarding the entrance to Port Jackson. These two locations have the greatest similarity in terms of the themes set out below: natural heritage, Aboriginal heritage, navigation (including shipping and communication), defence and leisure.

South Head has had a range of overlapping uses since European landfall in 1788. It is one of a number of strategic coastal sites around Sydney, which have also been used for defence, navigation and leisure.

4.1 Natural Heritage¹³⁸

The remnant bushland areas of South Head are of low quality but provide important habitat for native fauna (see fauna assessment). The vegetation types are well represented elsewhere within the Sydney Basin.

South Head provides habitat for a number of common mammals, reptiles and an amphibian typical of disturbed park landscapes within the Sydney Basin. South Head also

¹³⁸ Information provided by Rob Newton of DECC

provides habitat for a number of migratory and itinerant bird species and several species whose greater range includes South Head. It provides foraging habitat for three threatened species, all of which utilise South Head as part of a much greater foraging area.

The presence of a reasonably large number of weed species at South Head decreases its natural heritage values. There are also conflicts between both the native and weed foliage and the interpretation of the cultural heritage of the site. This is because the landscapes of the key historical uses for navigation and defence would have been largely devoid of vegetation other than grassland allowing more expansive views both into and out of the site and between key precincts and features. However this situation is repeated at other significant headlands around Sydney Harbour.

4.2 Aboriginal Heritage¹³⁹

The middens and the shelters found at South Head are not rare site types. There are many examples of middens along the coast and shelter sites are highly represented along the coast and inland. Due to weathering, engravings are becoming a diminishing site type. However, there are still many other examples of these figurative motifs within the Sydney Basin region, and in a better state of preservation.

4.3 Navigation, Shipping and Communication

For the purposes of this CMP, the comparative analysis will focus on the cottages associated with Hornby Light but will include discussion of other sites at South Head that lay outside the study area, but which relate to navigation such as the Macquarie Lighthouse and Hornby Lightstation, and the navigation obelisk at Green Point (owned and managed by the NSW Maritime Authority).¹⁴⁰

4.3.1 The Hornby Lightstation

As outlined below, the Hornby Lightstation is distinct from other lighthouse complexes in NSW, owing to its relatively early date of construction, the shortness of the Hornby Light tower, the configuration of the Lightkeepers' cottages and the designation of the light as a harbour light.

¹³⁹ Information from *Aboriginal Archaeological Cultural Heritage Assessment South Head* by Jillian Comber 2006 (Volume 3 to this Report).

¹⁴⁰ State Heritage Inventory Database No. 4920037. The Obelisk is included in the 1999 Section 170 Heritage and Conservation Register of the Marine Ministerial Holding Corporation.

The treacherous cliffs on the seaward side of South Head necessitated the construction of navigation aids, including lighthouses and markers, to enable ships to pass safely through the heads and into Port Jackson. The first lighthouse in the Colony of NSW (and Australia) was built on the site of the existing Macquarie Lighthouse at Outer South Head in c1818. Hornby Lightstation (including the tower, Head Lightkeeper's Cottage and Assistant Lightkeepers' Cottages) was built in c1858, following the wrecking of the *Dunbar* and *Catherine Adamson* in 1857. Hornby was the third lighthouse to be built in NSW (after Macquarie Lighthouse in 1818 and Nobbys Head lightstation, also completed in c1858). Port Stephens Lightstation was constructed soon after in 1862.

In order to distinguish it from Macquarie Lighthouse to the south, the Hornby Light was known as the Lower Light. Compared to the other lightstations constructed in NSW, Hornby Lightstation has rarity value as one of the earliest lightstations built in the state. Most of NSW's nineteenth century lightstations were built from 1870s onwards and contained taller, more isolated coastal lighthouses.

Nobbys Head Lighthouse at Newcastle was built at same time as the Hornby Light (c1858). Both structures are relatively short in stature - possibly because they were designated as harbour lights and possibly also because they were positioned on elevations high above sea level. Both lighthouses are around 9 metres high. By comparison Macquarie Lighthouse is 26 metres high.

The siting of South Head at the mouth of Sydney Harbour meant that ships travelling into Port Jackson could be observed from Hornby and Macquarie Lightstations. One of the responsibilities of lightkeepers at Hornby in the nineteenth and early twentieth centuries was to write a log, which recorded weather patterns, staff rostered on, and the operation of the light (how much oil/kerosene was used etc.). According to heritage consultant David Sheedy, only one log book is extant, which dates from 1859–61. The log book gives '...the names of keepers', weather and minor general comments and is a useful snapshot of activities if carefully studied'. Lightkeepers were paid extra allowances for 'signalling, acting as meteorological observers, attending breakwater lights, and Rocket Brigade.'¹⁴¹ Staff at South Head Signal Station, to the south of the Hornby Lightstation, entered details of ships entering and leaving the harbour into a log book, which was essential for customs,

¹⁴¹ Sheedy, David, *Head Lightkeeper's Cottage, Hornby Light, Inner South Head, Port Jackson, NSW*, prepared for the National Parks and Wildlife Service, May 1988, p. 27-28.

defence and navigation purposes. However, it is likely that there were strong communications between staff at the Hornby and Macquarie Lightstations, and staff at the Signal Station with regards to the ships passing through the heads.

By 1913, Hornby Light was classed as a harbour light, which means that it was of a different (and presumably lower) status compared to coastal lighthouses. At that time C. W. Brewis noted:

The entrance to Port Jackson is now marked by leading lights on Grotto Point. Hornby Light has therefore lost its supreme importance. It is, however, still of use as a harbour light guiding vessels from the southward which take a course close to shore, also to vessels entering Port Jackson out of the range of the leading points on Grotto Point.¹⁴²

Grotto Point Light at the junction of Middle and Sydney Harbour was built in 1910 and was exhibited the following year. It is unclear whether Hornby Light was intended as a harbour light when built, or whether it was demoted with the completion of the Grotto Point Light in 1911. In any case, the classification of Hornby Light as a harbour light by Brewis in 1913 was the reason it was not immediately transferred to the Commonwealth Government, remaining in the control of NSW until transferred to the Commonwealth in the 1930s (it is now in State Government control).

Graham Brooks notes that Hornby Lightstation has high landmark value for those passing through the Sydney Harbour Heads and is also a clear example of an historic site with strong associations to both navigation and maritime defence themes.

4.3.2 The Hornby Lightkeepers' Cottages

The lightkeepers' cottages at Hornby are the oldest surviving in NSW, with those at Nobbys Head Lightstation being reconstructed in the c1940s. The Hornby lightkeepers' cottages were one of the first in Australia to be designed as a separate cottage group rather than being conjoined to the base of the tower. The siting of the lightkeepers' cottages at Hornby Lightstation is different from the usual configuration of lightkeepers cottages in NSW, in that they are in reversed position. It is usual for the Head Lightkeeper's Cottage to be

¹⁴² Brewis 1913, cited in Thorp, W., *Archival Report, Hornby Lighthouse and Associated Structures*, South Head, Sydney, prepared for the National Parks and Wildlife Service, June 1983, pp. 16-17.

located the closest to the lighthouse (this is because the Head Lightkeeper had the main responsibility for manning the light). At Hornby, however, the Assistant Lightkeepers' attached cottages are closest to the Light. This is probably owing to the sequence of building at the Hornby Complex. The Assistant Lightkeepers' cottages were the first buildings on the site, erected in c1858, followed by the Head Lightkeeper's Cottage further to the west, in c1860.

Hornby Lightstation is a rare survivor of the design of Government Architect Alexander Dawson in the mid nineteenth century. All other lightstation cottages from this period have been demolished with the exception of the ruined terrace of three cottages at Point Stephens, which were destroyed by fire in the 1990s.

The two lightkeepers' cottage buildings were extended in 1877 to the design of James Barnet and according to Sheedy¹⁴³ this established a model for Barnet to use in other keepers' cottage designs throughout NSW. Because of this late 1870s makeover, the Hornby cottages can be compared with other Barnet designed lightstation cottage groups from the late nineteenth century. Many of these groups have more intact landscape elements and relationships with the lighthouse such as at Barrenjoey (1881) and the nearby Macquarie Lightstation Group (c1883).

The symbiotic relationship between Hornby Light and the cottages in the nineteenth and early twentieth century is not readily understood today, due to the landscaping works at the complex. When the lighthouse was manned by lighthouse staff in the nineteenth and early twentieth centuries, the headland was denuded of vegetation to allow easy movement between the cottages and the light. The barren landscape of the headland was important for defence (see below), as well as visibility for reading the light when viewed from the harbour/ocean and also across the headland to the Signal Station and the Macquarie Lighthouse at Outer South Head. NPWS staff presently occupy the conjoined Assistant Lightkeepers' cottages, and the cottages are surrounded by dense hedging to ensure privacy for the current residents. This landscaping makes it difficult for the public to interpret the cottages and their relationship with the Light and the Head Lightkeeper's Cottage. This situation could change in the future with a revised landscape scheme, which

¹⁴³ Sheedy, David, *Head Lightkeeper's Cottage, Hornby Light, Inner South Head, Port Jackson, NSW*, prepared for the National Parks and Wildlife Service, May 1988, p. 37.

could provide a balance between privacy for the occupants and some views to the cottages for visitors.

Overall the Hornby lightkeeper's buildings and their settings have historical and technical importance at a State level.

4.3.3 Green Point Obelisk

Navigation was an important issue at the close of the 1850s. Along with the construction of the Hornby Light, the obelisk at Green Point was one of four navigation markers erected in Sydney Harbour in c1858, as part of works to ensure safe passage into Sydney Harbour. Two were erected at Obelisk Bay and one at Parsley Bay (West Parsley Bay Obelisk – 65 Fitzwilliam Road, Vaucluse). The Green Point obelisk has significance of one of group of four navigation obelisks built within Sydney Harbour in c1858. This group of navigation obelisks has historical significance as relics of the navigational aids used in the harbour during the nineteenth century.

4.4 Defence Heritage

In this comparative analysis only coastal defence heritage sites in the Sydney Region dating from the period after 1854 (when the South Head Batteries were commenced) and designed for the use of significant artillery are discussed. For example Dawes Point Battery, which began construction in 1789, is not included even though much of the current evidence at the site dates from the 1850s to designs of George Barney. Also Dawes Point does not have the overlaying of significant twentieth century ordinance changes that are found at South Head and elsewhere.

Similarly this comparative analysis does not deal with the defence sites sited further up the harbour because of the convenience of water transport such as at Newington Armoury, nor with other inland defence management or accommodation sites.

Information on Fort Scratchley at Newcastle is included as it is considered to be one of the most intact late nineteenth century coastal defence installations in NSW (i.e. retaining much equipment and fittings), although it is an 'enclosed' fortification, unlike the more open batteries of South Head and other Sydney Harbour sites.

The phases which can be applied to Sydney's coastal defence sites are:

- early to mid-nineteenth century;
During the early 1800s any threat to Sydney was seen as coming from the sea. Following a warning from Sir Joseph Banks during the Napoleonic Wars, Governor King constructed a battery between Georges Heights and Middle Head in 1802, which remained the most forward battery in Sydney's defences until the 1850s. A report by Captain G. Barney led to the construction of defences on Pinchgut Island (now Fort Denison) and Bradleys Head but this work ceased in 1842. The first comprehensive plan for the defence of Sydney Harbour, made by Lt Colonel J Gordon in 1845, recognised the defence potential of the headlands near the entrance to Port Jackson. The 'Gordon' scheme was implemented from 1847 establishing a two line defensive system with the inner line at Sydney Cove with Georges Heights and Middle Head as part of an outer line of defence. The Gordon scheme recognised the limitations of armaments of the day with their limited range.
- 1850s–1860s;
The Crimean War of 1853–56 accelerated the selection of sites for defensive purposes. Sites selected at Middle Head and Inner South Head were designed to command the entrance to the harbour, the shipping channels and the area to seawards of the Heads. These outer works ceased in 1855 with the arrival of Sir William Denison, the new Governor of NSW. The experience of the American Civil War had restated the need for heavier weapons and more secure gun emplacements; the armoured casemate principle was to be used on open sites with circular gun pits in more protected areas. In 1855 Denison submitted a report which stressed that the inner defences were more important and works were concentrated in the inner harbour when Fort Denison was completed. In 1862 the British government resolved that colonies with responsible government should bear the cost of their own defence. During the 1860s a Royal Commission investigated the state of the colony's defences and by 1870 the last British (Imperial) line regiment had left Australia.
- 1870s
The Defence Committee of September 1870 recommended the construction of batteries on Middle Head, Georges Head, Bradleys Head, Steel Point and South Head, as part of an outer line of defences. The actual program concentrated on batteries erected on Middle Head, Georges Heights and South Head. Open batteries on elevated positions avoided the danger posed by the newly developed explosive shells and thus remained feasible on Sydney's elevated coastal defence sites. Open batteries had the advantage of being much cheaper to construct than casemates or

closed defences. It was this style of fortification that was developed at Inner South Head, partly within the study area, in the 1870s. In 1872 the Engineer Corps of New South Wales was formed to assist in the works. Plans of batteries were drawn up in the Office of the Colonial Architect James Barnet, with construction starting in 1871. Most of this work was executed by 1877.¹⁴⁴ At this time forty-one guns were mounted in batteries and defence works in the foreshores of Port Jackson in total.¹⁴⁵

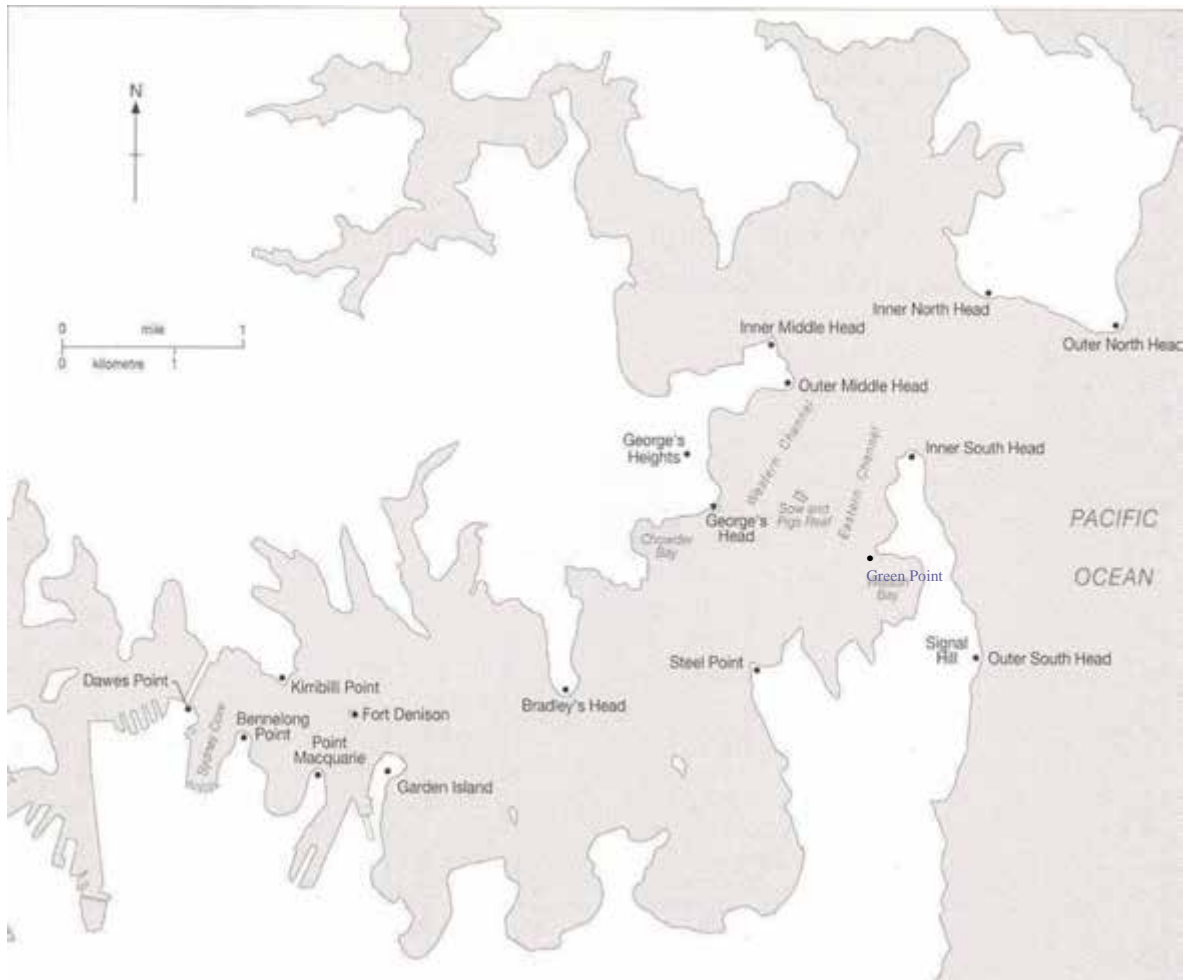


Figure 4.1. Map 1 - "Sydney Harbour showing geographical features referred to '...with location of Green Point added'. Source: Oppenheim, *The Fragile Forts*, Army History Unit ACT 2004, p 2.

¹⁴⁴ Department of Environment and Water, Commonwealth Heritage List ID 105577, *Batteries A83 and C9A, Georges Heights, NSW*

¹⁴⁵ Wilson, G.C., *Sydney Harbour Fortifications*, 1985, pp. 1.6-1.9; Oppenheim, 2004, pp. 90-5, 99, 105; Historic Heritage Maintenance Programme, NPWS, onsite interpretation; Gojak, Dennis, Site notes South Head c1985, courtesy NPWS, n/p; McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, p. 7

- 1877–1900¹⁴⁶

British fortifications expert General Sir William Jervois R.E. (Royal Engineers) was appointed governor of South Australia in 1877. Sir William Jervois and Lt. Colonel Peter Scratchley inspected each colony's defences leading to the Jervois-Scratchley reports, which were to form the basis of defence planning in Australia for the next 30 years.

A School of Artillery/Gunnery was begun at Middle Head in 1885, under Major E.G.H. Bingham. The school ran courses in moving, mounting and dismounting guns, following similar developments in the formalisation of artillery training in Britain. Warfare was becoming more scientific, and it had become clear that Coastal Artillery was not keeping pace with developments in technology. Over a period of three months, heavy artillery was transported to the new batteries at South Head, Middle Head and Georges Head by a force of 250 soldiers who fell victim to 'broken and twisted limbs, sprains and flesh wounds' in large numbers.¹⁴⁷

The reorganisation of the batteries on Middle Head, Georges Head and South Head between 1885 and 1890 resulted from their reports in which the need for better designed defences and for torpedoes or submarine mines was stressed. In 1878 submarine mine observing stations were constructed on Green Point, Inner South Head and Georges Heights. Recommendations made 1877–1885 included the construction of an Armoured Casemate Battery in 1882 at Georges Head, completed in 1886 under the direction of Colonel Scratchley. By 1889 areas of Middle and Georges Heads were clearly identified as resumed by the Crown for military purposes.

Technical developments in the 1880s resulted in changes to the fortifications of Sydney Harbour, including the use of telephone lines in the late 1880s, and the construction of Submarine Miners facility at Chowder Bay and at Green Point in 1890. The Submarine Mining facility was completed in 1893.

¹⁴⁶ Department of Environment and Water, Commonwealth Heritage List ID 105541, *Defence Site - Georges Heights and Middle Head NSW*

¹⁴⁷ Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 97, 137; McNamara Soder Associates, *Officers' Mess, Gap Bluff*, 1989, p. 7-8

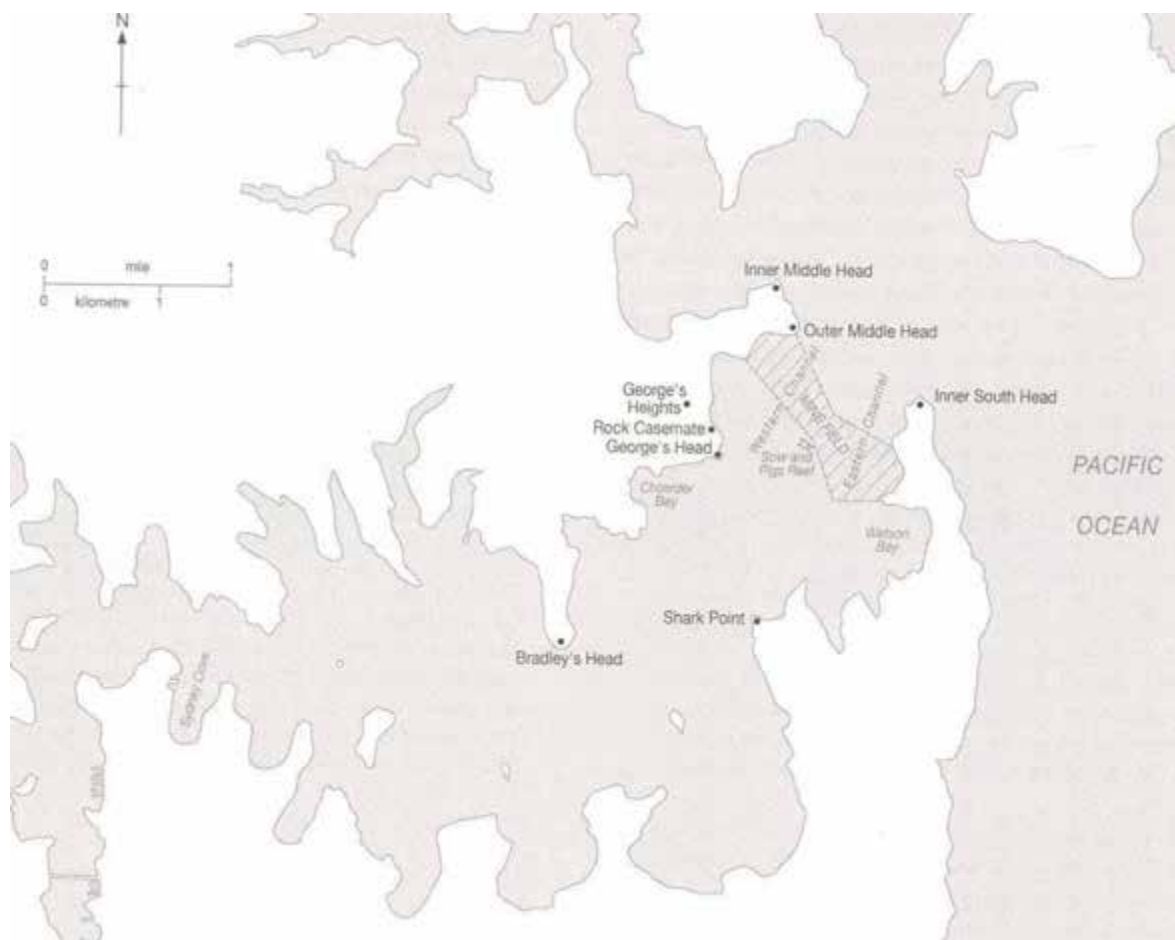


Figure 4.2. Map 4, showing the “Keep Him Out” strategy, 1874.
 Source: Oppenheim, *The Fragile Forts*, Army History Unit ACT 2004, p 102

The disappearing guns of the 1880s were generally replaced in the 1890s, as a matter of policy, by Quick Firing Guns mounted in deep open concrete emplacements. Such emplacements were constructed on Georges Heights, Middle Head and South Head, remaining the standard form until after World War Two (WWII). The office of Colonial Architect James Barnet was responsible for much of the new works.

- 1900–1939

By 1903 the most important defence works in Sydney Harbour were concentrated on Georges Heights, Middle Head and at South Head. Between 1903 and 1907 some batteries reconstructed for 6-inch Mark 7 Breech loading guns. The Submarine Miners Corps was disbanded in 1922.

By 1911 the armament of the Sydney coast defences had been drastically reduced, and consisted of only twenty guns mounted in six locations. Eight of the twenty were

mounted at South Head, and a further three were to be installed there.¹⁴⁸ The major project pre-WWII was the fortification of North Head.

- 1939–1945 (WW II);

An Anti-Submarine and Torpedo Boom Net was constructed between Green Point and Georges Head to restrict entry to Sydney Harbour in early 1942. The only significant defence action in the Harbour was the Japanese midget submarine raid in 1943. Radio monitoring equipment at the Middle Head Barracks intercepted the transmissions of the submarines alerting defence forces to the attack. Defence installations on Middle and Georges Heads failed to identify the attackers, although one of the submarines was caught in the anti-submarine net. The Pacific crisis had faded by mid-1944 and the manning of Sydney's coastal artillery was reduced to a partial Voluntary Defence Corps basis. Work commenced on dismantling the boom net in August 1945 and by early 1946 all but the large dolphins had been removed.¹⁴⁹

- 1945 to 1970;

From 1946, with the end of the war, Sydney's almost obsolete military fortifications and barracks were rationalised. In 1963 Australia's Coastal Artillery was completely disbanded.

- 1970 to present (revegetation and de-accessioning)

In 1979 many headland defence sites were included in the newly formed Sydney Harbour National Park, owned and managed by the NPWS.

¹⁴⁸ Wilson, G.C., *Sydney Harbour Fortifications*, 1985, pp. 1.5, 1.10; Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p; Oppenheim, Peter. *The Fragile Forts*, 2004, pp. 193, 198

¹⁴⁹ Oppenheim, Peter. *The Fragile Forts*, 2004, p. 286; Onsite interpretation · Woollahra History and Heritage Society Inc., 1995

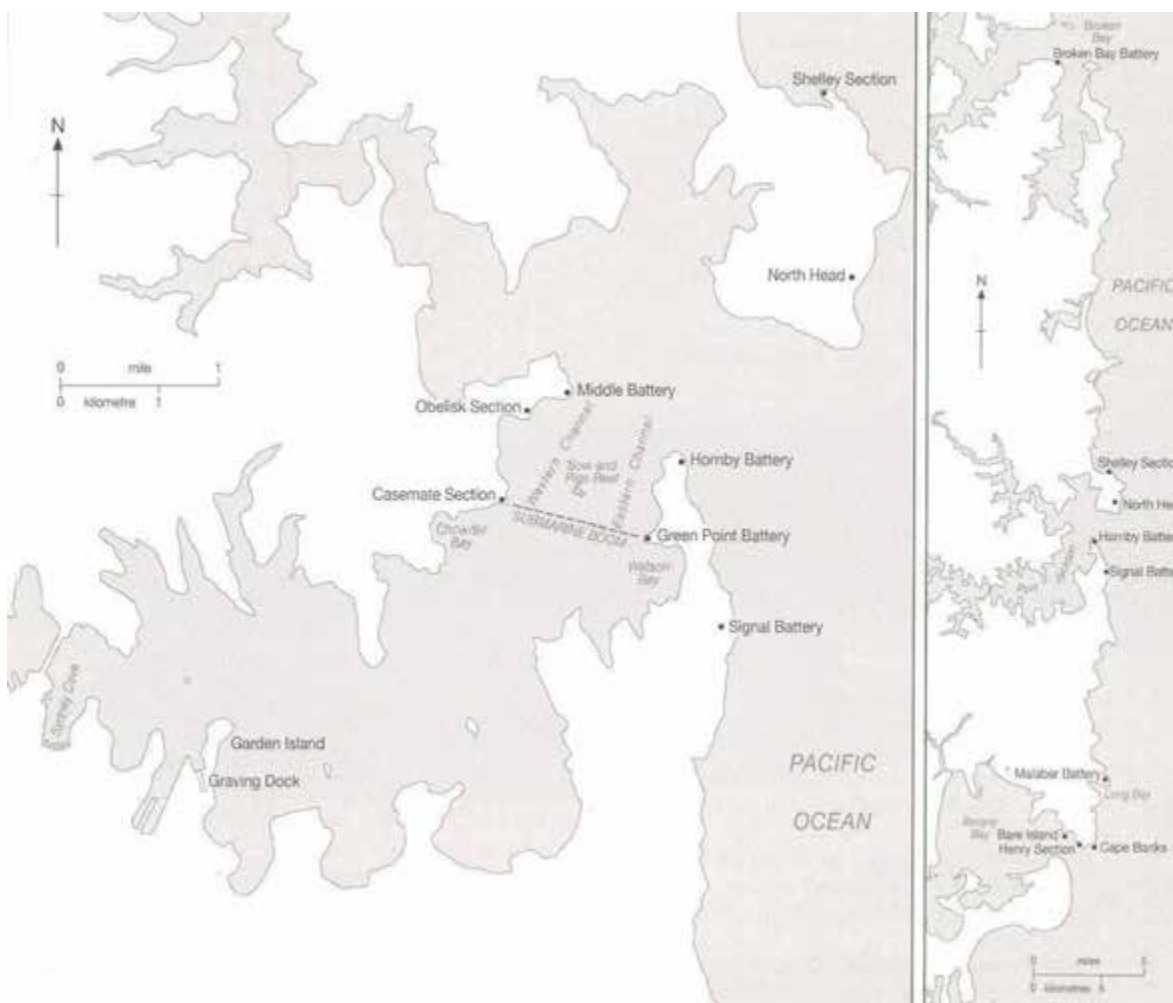


Figure 4.3. Map 6 “Sydney Fortress: the Final Defence Scheme, 1944” from “The Fragile Forts” by Oppenheim Army History Unit ACT 2004, p 283

4.4.1 South Head

South Head was recognised early in the nineteenth century as a strategic location for harbour defence. In the mid nineteenth century South Head had the advantage over other strategic defence sites in the harbour in terms of accessibility from Sydney Cove by road (both the New and Old South Head Roads). In comparison, many of Sydney’s other strategic coastal defence sites were located on the north shore, meaning that they were relatively inaccessible by road from southern side of the harbour until the construction of the Sydney Harbour Bridge in mid 1930s, although they were accessible by water transport until this time.

A range of redundant defence fortifications and equipment encircle Inner South Head and Green Point dating from the 1850s to the mid-1940s. This ‘defence heritage’ was constructed over a number of phases in response to perceived external threats and

overseas wars, including the Crimean War (1854–56), fears of Russian invasion in the 1870s and WW II (1939–45).

Inner South Head

Inner South Head and Gap Bluff were formally reserved for defence use in 1877, although they had been earmarked for defence use from the 1850s. Work was commenced on South Head in October 1854. The tip of South Head was first cleared of vegetation, and construction of the battery began. The battery at South Head was designed as a rampart on which guns were to be mounted, flanked on either side by four circular bastions each mounting one gun. This was to form part of a larger enclosed work mounting six guns. Circular bastions had been in use for some time in Britain, but their use on South Head in the 1850s was the first time they appeared in NSW. The design was never completed and the Hornby Light sits in one of the 1850s gun pits. The other, right on the tip of the headland, remains. No physical evidence of the rampart has been found. The battery adjacent to the Hornby Light, facing the sea, was superseded in 1904 by a new sea-facing battery within today's HMAS Watson.

In 1876, the Hornby Battery of three gun pits, cut out of the sandstone of South Head, was constructed facing the sea just to the south of the Hornby Light tower. The two northern gun emplacements are within the study area, and the other, along with some of the associated passages are within HMAS Watson. Two more gun emplacements were built further south, now within the area of HMAS Watson. The South Head sea-facing battery formed the main seaward defence until 1889, armed with heavy 9-inch and 10-inch RML guns capable of sinking ships at sea.

South Head was decommissioned from the 1950s and part of the site was transferred to HMAS Watson. The army reserve at Gap Bluff was used as a training and barrack establishment.

The 'open fort' complexes found at South Head and other Sydney headlands are in contrast to the more enclosed fortifications found at Bare Island and Fort Scratchley.

Lady Bay

One of the training activities of the Gap Bluff School of Artillery/Gunnery was the relocation of the 9-inch cannon, which now sits above Camp Cove from its previous location near the Hornby Light, in 1901. This gun was one of six brought to NSW from the Royal Gun Factory

in England in 1872. Of the other five, two were placed at Bare Island, Botany Bay, two at Fort Scratchley near Newcastle, and one used at the Victoria Barrack School of Artillery/Gunnery for training purposes.

Gap Bluff

The Middle Head School of Artillery/Gunnery was relocated to Gap Bluff in 1894–95. Gap Bluff developed as a discrete landscape with a relationship with HMAS Watson to the north, first as the School of Artillery/Gunnery (c1894–c1914), then the Radar School (within the Naval Radar Communications Centre), established in the early years of WWII.

In terms of fortifications the only remaining element within NPWS land at Gap Bluff is the 1894–1907 Practice Battery, originally accommodating 4 x 80 pounder RML guns, which was modified in 1910–1917 to accommodate 3 x 5 inch BL guns. The Gap Bluff facility seems to have been used for practical demonstrations, with formal teaching undertaken at Victoria Barracks. South Head was one of the few locations where active weapons were maintained between the wars. The practice battery at Gap Bluff was dismantled in 1938.¹⁵⁰ South Head was decommissioned from the 1950s and part of the site was transferred to HMAS Watson. The November 1950 National Service Bill resulted in a sustained expansion of military depots and camps. The Army-held section of the South Head Military reserve at Gap Bluff was appropriated for National Servicemen.

In 1912 two double-storey barrack blocks with associated offices were built for the Artillery/Gunnery School (now demolished but with the latrine still being extant). After 1941, the School of Artillery/Gunnery was relocated back to Middle Head, the site at Gap Bluff being seen as too close to potential active combat. The Gap Bluff complex was taken over by the Army and functioned to support the defence activities at South Head. The Officers' Mess continued to be used in that capacity, and the School of Artillery/Gunnery buildings to the north functioned as administrative block and barracks. Two further barrack blocks were constructed at this time flanking the main school buildings to the north and south, as well as a canteen and two miniature ranges. A large garage and separate Motor Transport Office were constructed adjacent to the Officers' Mess, and sleeping quarters were built on its northern side. All of these structures were constructed in weatherboard or

¹⁵⁰ McNamara Soder Associates, Officers' Mess, Gap Bluff, 1989, pp. 9, , 18, 21

asbestos cement. The Navy's Radar Communication Centre was also accommodated in the former school from 1941.

The School of Artillery/Gunnery expanded until the outbreak of WWII. Significant buildings remain at Gap Bluff but not to the same extent as they do within HMAS Watson or at Georges Heights. They include the former workshop associated with the Practice Battery (1895–1903, similar structures are at Chowder Bay and at Green Point) and the Officers' Mess (1936).

In 1950 to accommodate increased numbers due to National Service, 13 barrack and service blocks were constructed on the western side of the reserve, overlooking Camp Cove (now within the area of HMAS Watson), and additions and alterations were made to several of the former School of Artillery/Gunnery buildings. The Store/Armoury (also referred to as the former workshop), constructed in c1895 to serve the practice battery on Gap Bluff, was extended to function as a Quartermaster's store.

The military/defence landscape at Gap Bluff relating to HMAS Watson, in the period from the late nineteenth century through to 1970s, is difficult to read due to the revegetation of the area, which took place in the 1970s.

Green Point

Green Point was acquired by the Crown for military use in the 1850s. Some time between 1872 and 1885, a battery was constructed at Green Point, but little is known about it, and no physical remains of it have been identified. In 1878 a Submarine Miners Firing Station was built into the hillside at Green Point, consisting of a long access passage, two main rooms, and a passage leading into the harbour, to take out the electrical cable.¹⁵¹ Two viewing ports allow full views across to Middle Head. A minefield was installed across the shipping channels, and a similar firing station was built on the other side of the harbour at Georges Head. Green Point is part of the first Submarine Mining installation in Australia.

A small battery was constructed at Green Point after 1892, perhaps using the previous battery on the point. No physical remains of it have been identified. The footings of Electric

¹⁵¹ There is speculation that this passageway leading to the harbour, associated with the Submarine Miners Firing Station, was in fact the c1940s indicator loop that was associated with the Boom Net. Paul Davies to advise.

Light Station No. 4 (aka Searchlight No. 4), also constructed at Green Point prior to 1903, survive adjacent to the navigation obelisk.

Accommodation for military personnel on Green Point included Officers Quarters, constructed between 1892 and 1903, a simple weatherboard cottage currently known as Green Point Cottage, at 36 Pacific Street.¹⁵² The adjacent former Marine Biological Station constructed 1878–81 was used as defence accommodation from 1885 until the 1990s. This building and its garden are outside the study area.

An Anti-Submarine and Torpedo Boom Net was constructed between Green Point and Georges Head to restrict entry to Sydney Harbour in early 1942. A 6-pounder Anti-Torpedo Boat gun was mounted at Green Point during 1941, covering the boom. Its location and form are unknown, but it was most likely similar to the corresponding guns covering the net at Obelisk Bay and Georges Head. A three storey, square concrete Observation/Electric Light Tower, 'ELS 17', was also constructed. No remains of the tower are extant, but local tradition states that it was situated in the rock outcrop next to the Officers Quarters.

Camp Cove

In the 1890s the NSW Military purchased the former Water Police site at Camp Cove. The building at 32 Cliff Street, now known as 'Constable's Cottage', was built between 1895 and 1903 as married quarters for Artillery Personnel. The architect was possibly R.E. Paselow. In 1952 the building was converted into a single residence.

4.4.2 HMAS Watson

The defence site that now makes up HMAS Watson was originally an integral part of the Defence use of all of Inner South Head from 1839 when the first guns were installed in the area.

In 1871–73 a battery mounting five guns, with associated passages and magazines, was constructed on the rise behind the cliffs between Camp Cove and Lady Bay, facing the harbour. The battery had the function of close defence, within the harbour, and was armed with light, quick firing guns. Remains of this battery are now within the area of HMAS Watson.

¹⁵² Martin, Megan, *A Thematic History of Watsons Bay*, 1997, p. 76; Gojak, Dennis, Site notes on South Head c1985, courtesy NPWS, n/p

The Hornby Battery was constructed in 1876. The two northern gun emplacements are within the NPWS study area, and the other, along with some of the associated passages etc are within HMAS Watson. Two more gun emplacements were built further south, within the area of HMAS Watson. This sea facing battery formed the main seaward defence until 1889, armed with heavy 9-inch and 10-inch RML guns capable of sinking ships at sea. In 1904 a new sea-facing battery was constructed within today's HMAS Watson.

The heritage buildings now within the HMAS site were originally barracks for artillerymen and officers in the 1870s (Artillery/Gunnery School). Some of these remain as part of HMAS Watson. The residence Cliff House 1876 (since relocated), Barrack Building 33A 1879–80. Other heritage buildings from the Artillery/Gunnery School are Barrack Building 27 was built 1891–93 and Married Quarters Building 25 built 1899–1903 (architect R. E. Paselow). The buildings are all important as examples of barracks buildings of the latter nineteenth century. The heritage buildings within HMAS Watson have a significant level of intactness and integrity to the late nineteenth century, which makes the group distinctive among the Sydney Harbour defence installations such as at Middle Head and Georges Heights.¹⁵³

The South Head facilities were transferred from the NSW colonial government to the Commonwealth in 1903.

HMAS Watson grew from the Naval Radar Communications Centre established within Army land at South Head in the early years of WWII. The army remained on parts of South Head until the 1970s when its land was acquired by NPWS. The Radar Training School moved to the site from Rushcutters Bay in the 1950s. Today HMAS Watson is an important Navy training facility, catering for students ranging from officers preparing for command of a major fleet unit through to sailors just having completed their recruit training.¹⁵⁴ HMAS Watson presently occupies the centre of the headland, separating the Gap Bluff and Hornby areas, with a small connecting strip for public access along the top of the harbour side cliffs. Many of the remains of the fortifications, and surviving accommodation and

¹⁵³ Australian Heritage Database Entry 105582 Barracks Group HMAS Watson

¹⁵⁴ Martin, Megan, *A Thematic History of Watsons Bay*, 1997, p. 76

administration facilities associated with defence activities on the headland from the 1870s to the end of WWII are located within the area of HMAS Watson.

4.4.3 Middle Head, Mosman

The Middle Head Fort Complex comprises a series of gun emplacements, magazines, structures and buildings dating from 1801 (Georges Head) through to WWII.

The defence sites at Middle Head can be divided into five complexes.

- Outer Middle Head Battery: Battery, associated buildings, structures and installations
- Inner Middle Head Battery: Battery, associated buildings, structures and installations
- Inner Middle Head Barracks: Buildings used for accommodation, associated outbuildings including latrines and archaeological sites resulting from the activities of the troops (eg dumps).
- Middle Head Fortifications: Defensive works across the whole headland including moats, roads, and sites not included in the other areas.
- Obelisk Bay Fortifications: This complex includes all structures beyond the outer moat and south of Middle Head Road. It excludes the 1801 battery, which is included in the 'Middle Head Fortifications'.

The 1850s battery at Middle Head, contemporary with that at South Head, adhered to the parapet design of Sydney's earlier fortifications.¹⁵⁵

The most important individual sites are the group of buildings surviving from the Barracks, the Middle Head Fort and the Inner Middle Head Fort mostly dating from the 1870s, but with important WWII upgrading. Associated with these are early roads, a stone lined defensive moat and numerous isolated structures such as Observation Posts and Searchlight Posts, range finding stations, quarry sites and archaeological remnants of earlier structures.

A School of Artillery/Gunnery was begun at Middle Head in 1885, under Major E.G.H. Bingham. The school ran courses in moving, mounting and dismounting guns, following

¹⁵⁵ Wilson, G.C., Sydney Harbour Fortifications, 1985, p. 1.8

similar developments in the formalisation of artillery training in Britain. Over a period of three months, heavy artillery was transported to the new batteries at South Head, Middle Head and Georges Head by a force of 250 soldiers. The whole area is littered with remnants of military occupation of various types and is related to adjoining areas still in military occupation. By the 1960s most of the defence uses had ceased and the area became National Park in 1970.

The Middle Head Fort Complex at Mosman is one of the most significant defence sites in Sydney with an outstanding collection of military fortifications and facilities, which date from first settlement through to the mid-twentieth century. Taken with other sites in Sydney, the technology and philosophy of military defence is demonstrated and recorded. The Middle Head defence sites are more complex and probably more intact than those at South Head.



Figure 4.2. Photograph of Middle Head Fort Complex, Sydney Harbour National Park, Old Fort Road, taken in c1996. SHI Database 2060498

4.4.4 Georges Heights, Mosman

Georges Heights is on Commonwealth owned land. Four separate batteries (B42, A83, A84 and C9a) were commenced at Georges Heights in the 1870s. The batteries comprise underground rock-cut tunnels and chambers and above ground gun emplacements constructed from 1871. They retain a high degree of integrity to their 1870s layout and the evidence of internal fittings and ancillary structures relative to other gun batteries of the period in Sydney Harbour. As at South Head the batteries were modified in the 1890s to

accommodate Hydro-pneumatic (HP) guns. Other characteristics include a brick lined powder magazine, shell stores and ready stores and an above ground observation post.¹⁵⁶

Battery A84 is an uncommon example of a 1870s coastal battery, which was modified in 1889–1892 to accommodate a Submarines Miners Firing and Observation Post. The battery passages were roofed in concrete and four pits filled in. False floors were also added to the passages. An inclined rock-cut tunnel was also constructed connecting the battery directly with the Georges Heights Artillery Barracks of 1873. These works coincided with the construction of the Chowder Bay Submarine Miners Depot and Barracks for the Submarine Miners at Chowder Bay.¹⁵⁷

During the period of WWII some of the passages and walls were lined in brick.

The site was stripped of its artillery in the post war years following the decommissioning of coastal defence batteries. Recent work at the site has restored in part the two southern gun pits, whilst iron doors have been added to the Shell Store. Guns contemporary with the battery have been placed in the two open gun pits on reconstructed mountings.

4.4.5 Georges Head Casemates

The Georges Head Battery consists of an underground rock casemate and a semi-underground armoured casemate battery. Both are above Chowder Bay and within Sydney Harbour National Park.

The underground brick and sandstone lined fortification was built in 1872 under the direction of Colonial Architect James Barnet to guard the entrance to Port Jackson. This battery was a major construction project in its day and was considered a key defensive position in the harbour. It has important historical associations for its design and its role in the defence policy of the period. It forms a pair with the nearby Semi-Underground Casemate, is relatively intact and in fair condition and is part of a collection of historic fortifications around Sydney Harbour.

¹⁵⁶ Department of Environment and Water, Commonwealth Heritage List ID 105577, *Batteries A83 and C9A, Georges Heights*.

¹⁵⁷ Department of Environment and Water, Commonwealth Heritage List ID 105247, *Battery A84, Georges Heights*.

The semi-underground casemate was built between 1882 and 1886 to the design of Colonel Scratchley R.E., with construction supervised by the Colonial Architects Office, following the 1877 recommendations of Sir William Jervois. It is 'an ingenious and advanced casemate design and an excellent example of colonial defence works of the late nineteenth century. This battery once housed some of the largest guns ever mounted in Port Jackson and was considered a key defensive position in the harbour. It has important historical associations for its materials and the saga of its construction.'¹⁵⁸

4.4.6 Bradleys Head, Mosman

Ashton Park at Bradleys Head contains two fort complexes, the first dating from 1840, the second from 1871. Both the 1840 gunpit and the 1870 battery are partly constructed of large blocks of sandstone and partly carved out of the original rock. The 1840 battery was built under the supervision of Major George Barney; it was part of the inner line of defence for Sydney. The 1870 battery has three gunpits with connecting galleries and trenches built under the supervision of James Barnet.

Associated with the forts at Bradleys Head is a sandstone wharf dating from the 1850s and a riflemen's gallery built with the extension of 1870. The mast of the Royal Australian Navy ship HMAS Sydney was erected over the 1840s fortification complex in 1934 as a memorial to WWI. The tripod mast is a prominent landmark and is in good condition. The area around the forts contains archaeological evidence of a larger group of buildings and structures which were once part of the fortification complex and the footings of a WWII anti-aircraft gun emplacement remain on the top of the ridge above the point.

As at South and Middle Heads, the Bradleys Head Defence installations were updated with each successive conflict up until WWII.

The Bradleys Head Fort Complex at Mosman contains a collection of military fortifications and facilities, which date from 1839 through to the mid-twentieth century, and is part of one of the most significant historic areas in Sydney. The fortifications now feature as part of a popular recreation area and are probably the best known of Sydney's old forts.

¹⁵⁸ SHI Inventory No 2060118.



Figure 4.5. Part of the Bradleys Head Fortification Complex, Sydney Harbour National Park, Bradleys Head Road 1996. Photo from SHI 2060492

4.4.7 North Head

The North Head Battery was part of a WWII national coastal defence system. Historically it worked in conjunction with strategic WWII installations with other 9.2-inch batteries at Newcastle, Cape Banks and Wollongong.

North Head battery accommodated two 9.2-inch guns BL Mark 10 guns (gun pits Nos. 1 and 2), each is associated with a magazine, shell store and pump chamber, all underground and a concrete road above ground. A tunnel connects the two gun complexes with the underground engine room, which housed two diesel generators. The battery plotting room was underground and controlled the whole complex. The Battery Observation Post was a concrete building to the north of the site and above ground. The Battery was closed in 1960 with guns and other material scrapped.

North Head is a key link in the WWII defences of Sydney, Newcastle and Wollongong. The Battery is a major element in the extensive collection of Sydney Harbour defence facilities, which represent the range of military coastal technologies from the early nineteenth century to the present day. In particular the North Head Battery represents important advances in targeting procedures.

4.4.8 Cape Banks

In 1936, specifications were prepared for the erection of a command post and battery observation post at Cape Banks. Military housing for the military personnel was constructed around two years later. The decision to locate fortifications at Cape Banks was a result of changing approaches to the strategic military defence of Sydney in the first half

of the twentieth century. At this time, fortifications around Sydney Harbour, including Dawes Point Battery, were decommissioned and relocated along the coastline, including at the heads of Sydney Harbour, Cape Banks and Botany Bay (including Bare Island).

4.4.9 'Disappearing' Gun Sites

In 1893 disappearing guns with hydro-pneumatic (HP) mounts were established in Sydney as follows: Shark Point: #7317; Signal Hill: #7318; Bondi: #7319. The Ben Buckler Battery at Bondi is the only one of three 9.2-inch coastal batteries established in Sydney, which is likely to contain significant elements of the gun mechanism and mounting, the others being stripped of armaments and fittings. The Signal Hill, Vacluse barrel survives on public display at the Royal Australian Artillery Museum at North Fort, North Head.

4.4.10 Fort Scratchley, Newcastle¹⁵⁹

Flagstaff Hill on which Fort Scratchley stands is the site of Australia's first mining of coal, which led to the establishment of King's Town, now Newcastle. It is also the site of the first navigational aids to safeguard the flow of ships servicing the coastal ports as well as the inner Hunter River system. It is also the first and continuing site of a garrison and battery. Fort Scratchley survives as the most concentrated and complete example of the anti-Russian defences of the NSW colony and with the best exemplified changing military history. A seven gun earthen battery was constructed in 1822, which the convicts named Fiddlesticks because it was so ineffectual. In 1836 an eight-lamp lighthouse was erected, though the coal beacon continued in use until 1857, when a new lighthouse was constructed on Nobbys Head. Construction of the present fortifications began in 1880. The barracks were completed in 1886. At that time there were seven guns, four in pits and three in a casemate battery. The fortifications were enlarged between 1889 and 1902, and again in 1911 and 1939–40. They were built of mass concrete and consist of three gun emplacements and an underground casemate, linked together and to magazines by underground passages. The base of the hill is protected by thick concrete walls; the southern approach is protected by a ditch and loopholed concrete wall. In 1911, considerable changes were made as guns were replaced and the eastern most casemate turned into a magazine. In 1940 and 1942, additions were made to the observation post and to the blast walls. The guns saw their first and only action against an enemy in 1942, when a Japanese submarine shelled Newcastle. The army occupied the fort until 1972.

¹⁵⁹ Department of Environment and Water, Commonwealth Heritage List ID 105333, *Fort Scratchley Group Newcastle*

4.5 Sites of early European Leisure Activities on Sydney Harbour

Historically, European leisure activities at South Head have focused on Camp Cove and Watsons Bay, which continues today. The recreational use of the northern tip of the South Head peninsula (Inner South Head) and Gap Bluff, as well as Green Point, have been limited by its occupation by the military from the time the first fortifications were built in 1850s and until the 1970s.

South Head's dramatic setting encouraged recreational use in the first half of the nineteenth century. The improvements to Old South Head Road in 1811, and the later construction of the New South Head Road in the early 1830s, meant that South Head was traversable by both road and water, which made it attractive for day visitors. From the 1790s colonists walked out to the headland to look for ships, and as life became more comfortable in the colony, picnickers were attracted to South Head. Governor Macquarie visited in 1811 and Elizabeth Macarthur was a regular visitor in the 1840s. Both Peter Cunningham, a visitor to Sydney in the 1820s, and the preacher John Dunmore Lang remarked upon the popularity of New South Road itself, as a favoured promenade.

Watsons Bay was the drawcard for leisure activities on the South Head peninsula, particularly when a wharf was built there in 1854 and a regular ferry service was instituted. A number of leisure venues and activities were established at this time, including the Marine Hotel, the Billings Zoo and 'The Caves'. In contrast, Inner South Head and Gap Bluff were out beyond the end of both New and South Head Roads, and it is possible that the remoteness and rough terrain of these areas made them inaccessible for day-trippers. The Inner South Head, Gap Bluff and Green Point were closed to the public with the arrival of the military from 1850s onwards. It was not until these areas were ceded to the National Park in the 1970s that they were opened up for public access. Despite their inaccessibility, the dramatic views across South Head to the Hornby Light and the rugged cliffs of Gap Bluff have entered the imagination of sightseers as the farthest reaches of this magnificent peninsula.

As the northern tip of South Head, Gap Bluff and Green Point were closed to the public for most of the nineteenth and twentieth century, evidence of early European leisure activities at South Head are better understood at other sites around the harbour, such as Manly. Watsons Bay, sandwiched between Green Point and Inner South Head, has similarities to

Manly, which developed as a site of leisure in the 1850s. However Manly eclipsed Watsons Bay as a pleasure resort from the 1860s and 1870s.

4.6 Comparative Analysis Conclusions¹⁶⁰

N = known or likely heritage significance at a National level¹⁶¹, C = Comm Heritage List (EPBC Act), S = heritage significance at a State Level, REP = Syd Harbour REP Listing, L = heritage significance at a local level, U = unknown, - = not applicable

| | Fort Scratchley | Cape Banks | North Head, Manly (Sydney Harbour NP) | Bradleys Head, Mosman (Sydney Harbour NP) | Georges Head Mosman | Georges Heights, Mosman | Middle Head, Mosman | HMAS Watson | Hornby Lightkeepers' Cottages [1a.1 & 1a.2] | Hornby Lightstation [Precinct 1A.0] | Hornby Battery [1.3, 1.3a, 1.3b] | Inner South Head Overall [Precinct 1.0] | Lady Bay Precinct [Precinct 2.0] | Camp Cove Water Police Site/s [3.1, 3.5, 3.6] | Camp Cove Precinct [Precinct 3.0] | Gap Bluff Precinct [Precinct 4.0] | Green Point [Precinct 5.0] | South Head Overall (Sydney Harbour NP) | South Head Overall (Geographic Area) | Sydney Harbour National Park |
|--|------------------|------------|---------------------------------------|---|---------------------|-------------------------|---------------------|-------------|---|-------------------------------------|----------------------------------|---|----------------------------------|---|-----------------------------------|-----------------------------------|----------------------------|--|--------------------------------------|------------------------------|
| Natural heritage | U | U | S | S | S | S | S | U | - | - | - | L | L | - | L | L | L | L | L | N |
| Aboriginal heritage | U | U | U | U | U | U | S | U | - | - | - | L | L | - | N ¹⁶² | L | L | S | S | S |
| Navigation, shipping, communication | S | U | S | L | L | S | L | U | S | S | - | S | - | S | S | - | S | S | S | N |
| Defence: Early to mid 19 th century | S | - | L | S | L | - | - | S | - | - | S | S | L | - | L | L | L | S | N | N |
| Defence: 1850s-1860s | S | - | L | L | L | - | S | S | - | - | S | S | L | - | L | ? | L | S | N | N |
| Defence: 1870s | U | S | L | S | S | S | S | S | - | - | S | S | S | - | L | L | S | S | N | N |
| Defence: 1877 - 1900 | U | - | L | L | L | S | S | S | - | - | L | L | S | - | L | L | S | S | N | N |
| Defence: 1900 - 1939 | U | - | L | L | L | S | L | S | - | - | L | L | S | - | L | L | L | S | N | N |
| Defence: 1939 – 1945 (WWII) | U | N | N | N | N | N | L | S | - | - | - | S | S | - | L | S | S | S | N | N |
| Defence: 1945 - 1970 | U | - | S | - | - | - | L | S | - | - | - | - | - | - | L | S | - | L | S | S |
| Leisure | U | - | L | L | L | L | L | - | - | - | L | L | L | - | L | L | S | L | S | S |
| Historical archaeology potential (L = low, M = medium, H = high) | H | U | H | H | H | H | H | U | H | H | H | H | H | L | L | H | H | M/H | M/H | H |
| Current overall heritage listing | S ¹⁶³ | U | L/N ¹⁶⁴ | S ¹⁶⁵ | L ¹⁶⁶ | REP | S ¹⁶⁷ | CHL | L | L | L | REP | REP | L | L | L ¹⁶⁸ | L | REP | REP | REP |

¹⁶⁰ Information not covered in the Comparative Analysis above largely taken from the Australian Heritage Database and the NSW State heritage Inventory.

¹⁶¹ Assessment under the EPBC Act assessment criteria not part of this project.

¹⁶² Camp Cove Beach is believed to be the site of the landing of the first white man to set foot in Port Jackson.

¹⁶³ As part of the Coal River Precinct SHR 01674.

¹⁶⁴ The North Head School of Artillery is on the National Heritage List.

¹⁶⁵ Georges Head Military Fortifications SHR 00987.

¹⁶⁶ Semi-underground Casemate at Georges head is listed in Mosman LEP. Federal Government.

¹⁶⁷ Middle Head Fortifications SHR 00999.

¹⁶⁸ South Head Artillery Barracks Group / Gunnery School Group [Lower Gap Bluff 4A.0] Woollahra LEP (individually / and as part of

5.0 HERITAGE SIGNIFICANCE

5.1 Historical Themes

The following Australian and NSW historical themes can be applied to South Head within Sydney Harbour National Park.

| Australian Theme | NSW Theme |
|--|--|
| 1. Tracing the natural evolution of Australia | Environment - naturally evolved |
| 2. Peopling Australia | Aboriginal cultures and interactions with other cultures |
| | Convict |
| 3. Developing local, regional and national economies | Communication |
| | Environment - cultural landscape |
| | Exploration |
| | Technology |
| | Transport |
| 4. Building settlements, towns and cities | Land tenure |
| 7. Governing | Defence |
| 8. Developing Australia's cultural life | Creative endeavour |
| | Leisure |

5.2 Assessment under the NSW Heritage Act Criteria

The analysis in this section is arranged under the key themes of Aboriginal Significance, Navigation and Maritime Safety, Defence and Recreation. Under each of these themes the key precincts (Inner South Head, Lady Bay, Camp Cove, Gap Bluff and Green Point) are considered in historical order followed by South Head as a whole and then the wider Sydney Harbour National Park.

5.2.1 Criterion (a)

An item is important in the course, or pattern, of NSW's (or local area's) cultural or natural history;

Natural Heritage

Natural heritage values are discussed under criteria (f) and (g) below.

Aboriginal Heritage

The Aboriginal sites at South Head are significant because they provide a tangible link to the Aboriginal occupation of the land including evidence of pre-contact subsistence and religious activities.¹⁶⁹

Navigation, Place Making & Maritime Safety

The site of the former Camp Cove Water Police Station (1840) is within the National Park, although the more obvious remaining elements such as the former Water Police Landing Steps (Inventory Item 3.5 1840–1842) are outside the NPWS boundary. This site is historically significant in being the second Water Police station in Sydney (relocated here from Garden Island) and in demonstrating the strategic role of South Head in the surveillance of activity on the harbour, including prevention of convict escapes from Sydney by boat. It should be noted here that the South Head Pilot Station was at the south end of Watsons Bay and is outside the study area.

The NPWS land at Green Point has high historic significance as the first landfall of Governor Arthur Phillip in 1788. It has historic significance for its association with Edward Laing, surgeon in the NSW Corps, and original grantee in 1793 of land at Camp Cove, after whom Laings Point (now Green Point) was named. Green Point has historic significance as a key point in Harbour navigation from 1788. The Green Point Navigation Obelisk has significance of one of group of four navigation obelisks built within Sydney Harbour in c1858. This group of navigation obelisks has historical significance as relics of the navigational aids used in the harbour during the nineteenth century.

The Hornby Lightstation, comprising the Hornby Light (1858), Head Lightkeeper's Cottage (1860 & 1878), Assistant Lightkeepers' Cottages (1858 & 1878) and the surrounding

¹⁶⁹ Comber Consultants Pty Ltd, Aboriginal Archaeological Cultural Heritage Assessment South Head, Sydney Harbour National Park, 2007.

cultural and archaeological landscape, is considered to be of outstanding significance to the State of NSW. It was the third lightstation after Macquarie Lighthouse (1818) and Nobbys Head lightstation (also completed in c1858). The Lightstation is historically important in demonstrating European Sydney's reliance on sea navigation and communication.

Defence

The history of Hornby Lightstation is intertwined with the use of South Head for military purposes. The use of the Lightstation cottages by the Defence forces (1939–1977) strengthens the importance of the whole of South Head in NSW, and Australian defence history.

Inner South Head including Lady Bay was earmarked for defence purposes from the early nineteenth century and fortifications are in existence on Inner South Head from 1854–55, which are part of a Harbour wide defence strategy (never completed) in response to the Crimean War of 1853–56.

The Hornby Battery is historically important in illustrating the implementation of an outer line of defences to Sydney Harbour as recommended by the Defence Committee of 1870, following the departure of Imperial British forces. Together with similar fortifications at Middle Head and Georges Head it is evidence of the British Government's resolve that those colonies with responsible government should bear the cost of their own defence.

The remains of the Submariner's Firing Station, Searchlight Emplacements, Observation Post and associated infrastructure throughout South Head are important as part of the first Submarine Mining installation in Australia (1878–1903). Other evidence of this installation remains at Chowder Bay, Georges Heights, Middle Head and Inner South Head (Lady Bay Precinct).

Gap Bluff has historical importance as Australia's main School of Artillery/Gunnery from 1894 and for its significant Army and Navy uses during and after WWII.

Recreation

The National Park land at South Head was, until the 1970s and 1980s, set aside for navigational and defence purposes and is not considered to have any particular importance to early NSW recreational history. However the geographical feature of the headland itself

is important as marking the end of the journey up Sydney Harbour or along the early land based route on the ridge line. It also features in many post-1788 artists' impressions of the Harbour.

Since 1970 South Head has been widely appreciated as a place to enjoy a rich cultural landscape and outstanding views of the Harbour and its entrance. Lady Bay Beach is one of Australia's first nudist beaches.

Conclusion Criterion (a) – Historic Significance

The Sydney Harbour National Park (SHNP) at South Head meets Criterion (a) at a State level for its Aboriginal heritage values as part of the suite of Aboriginal heritage sites around Sydney Harbour a precious resource providing a precious tangible link to the Aboriginal occupation of the land. It also meets the criterion at a State level for the symbolic values of Green Point's association with Phillip's landing at Camp Cove.

Overall South Head meets Criterion (a) at a State level as it is important historically as one of the major geographical features defining Sydney Harbour and therefore a place of strategic importance for navigation as demonstrated within the South Head National Park boundary by the second Water Police station site at Camp Cove from 1840, the Green Point Navigation Obelisk from 1858, and the Hornby Lightstation from 1858. The wrecking of the *Dunbar* in 1857 with the loss of 122 lives was a key historical event associated with these later navigational improvements. South Head is an essential element in the maritime history of Sydney and Australia as part of the collection of key geographical features and maritime history related sites within the Sydney Harbour mouth including National Park land at Middle Head, Georges Head and North Head (including the Quarantine Station).

The SHNP at South Head meets Criterion (a) at a State level because it demonstrates changes in defence policy during the nineteenth and twentieth centuries. The nineteenth century emplacements demonstrate Australia's reaction to events in Europe. South Head in WWII demonstrates the reaction to a war brought closer to home and these values at South Head are worthy of further investigation, together with the defence role of parts of South Head (particularly Gap Bluff) in the late 20th century.

The SHNP at South Head meets Criterion (a) at a local level for role in the natural heritage and its aesthetic values the role these have played in the cultural history of and creative endeavour leisure in the local area.

5.2.2 Criterion (b)

An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's (or local area's) cultural or natural history;

The Aboriginal sites at South Head have significance in providing a continuing and tangible cultural links to the lifestyle and values of the Aboriginal community at the time of European colonisation and in the early days of the settlement prior to Aboriginal people being alienated from the land.¹⁷⁰

South Head has special association with the following key groups of persons associated with NSW history and / or the history of the local community:

- Water Police and their families who lived on site at South Head;
- Lightkeepers' and their families who lived on site at South Head and others involved in maritime safety and navigation;
- Descendants of the those associated with the tragic loss of the *Dunbar* and *Catherine Adamson* in 1857 and other nearby maritime disasters;
- Defence personnel and their families who lived on site at South Head;
- Defence personnel who were stationed, trained or were encamped at South Head including National Servicemen from the 1950s; and
- The Royal Australian Historical Society (RAHS) who erected the monument to Captain Phillip at Green Point in 1938 marking the 150th year since his landing in the vicinity.

The Hornby Lightstation is associated with its principal designers, the NSW Government Architects Alexander Dawson and James Barnet.

The South Head Defence installations are associated with:

- James Barnet (1827–1904) NSW Government Architect responsible for many of the fortifications structures in the late nineteenth century;

¹⁷⁰ Comber Consultants Pty Ltd, Aboriginal Archaeological Cultural Heritage Assessment South Head, Sydney Harbour National Park, 2007.

- Sir William Jervois (1821–1897) an expert in fortifications who was brought out from Britain to advise the NSW colony on how its coastal defences could be upgraded; and
- Sir P. H. Scratchley (1835–1885) a leading British designer of fortifications who worked with Jervois. Scratchley's recommendations for Pneumatic ordinance (and the associated structures to service them) throughout Australia proved to be misguided and expensive as the technology was short lived.

Conclusion Criterion (b) - Associations

The SHNP at South Head meets Criterion (b) at a State level for its association with the people listed above who are important in NSW's cultural history.

5.2.3 Criterion (c)

An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW;

Criterion (c) Aesthetic

The Hornby Lightstation demonstrates the work of the NSW Government Architect's Office under Alexander Dawson in the 1850s and 1860s and under James Barnet in the 1870s. The earlier sections of the Head and Assistant Lightkeepers' Cottages are rare survivors of domestic work to the design of Government Architect, Alexander Dawson, who also designed the tomb for those who died in the *Dunbar* in St Stephen's Church, Newtown. The later 1878 additions to the Head Lightkeeper's Cottage are fine examples of Barnet's skill in adding sympathetic elegant additions to such humble residences.

The landmark aesthetic qualities of South Head are strengthened by the presence of the Hornby Lightstation marking the entrance through the Sydney Harbour's 'Heads'. The Lightstation residences (Assistant Lightkeepers' Cottages c1857 and particularly the Head Lightkeeper's Cottage c1860) in their isolated headland position and with their Victorian Georgian intimate scale and detailing have strong aesthetic qualities. Similarly Green Point and the Navigation Obelisk have landmark aesthetic value within Sydney Harbour.

The fortifications at South Head and associated relics have aesthetic heritage value for their rugged qualities symbolic of the determined implementation of defensive works in a dramatic coastal setting.

Green Point Cottage and the Constables Cottage at Camp Cove (both originally military family accommodation 1895–1903) have aesthetic value as simple weatherboard Federation period seaside cottages and gardens, a style that was once more prevalent in the Watsons Bay and Camp Cove areas.

The Lower Gap Bluff area has remnant aesthetic value from the historic intensive use of the site for Defence training establishments complete with a prominent “Inter-War Functionalist” Officer’s Mess, archaeological evidence of barracks, entrance gates and avenue and surrounding formal gardens in contrast to what is now an overgrown archaeological landscape at Upper Gap Bluff with the exception of the cliff top with its outstanding lookout views peppered with the relics of defence use.

South Head is enriched by its cliff top ocean exposure and sense of isolation from the densely populated city within the harbour. The aesthetic landscape values share characteristics with many open space areas on Sydney’s headlands including rugged cliffs with projecting sandstone platforms and outcrops, nestling sandy beaches and coastal heath land, all set against a stunning maritime environment. At South Head these values are enhanced by the layering of Aboriginal and subsequent European uses within this prominent harbour landform.

The notable views and vistas to and from the various landscape precincts at South Head are listed at sections 3.4.2 (Inner South Head); 3.5.2 (Lady Bay Precinct); 3.6.2 (Camp Cove Precinct); 3.7.2 (Gap Bluff Precinct); and 3.8.2 (Green Point Precinct).

Criterion (c) Technical

The Camp Cove Water Police archaeological remnants, the Hornby Lightstation and Green Point Navigation Obelisk have technical heritage significance as part of developments in Australian maritime safety.

South Head demonstrates changes in defence technology over the period 1854 to 1982 including changes in construction materials from stone to reinforced concrete and the introduction of new technologies including new artillery, telephones, electrically powered search and beam lights, Depression Range Finders (DRFs) and Depression Position Finders (DPFs).

South Head is of State significance together with the structures and artefacts of other ‘inner harbour’ ‘open’ defence sites (Middle Head and Georges Heights) established in the 1870s, which were erected in elevated positions around the entrance to Port Jackson. It is also of importance in conjunction with WWII Coastal Defence Sites around Port Jackson (including Middle Head, Georges Heights, North Head and Cape Banks).

The 1870s Hornby Battery (partly within HMAS Watson land) and other gun emplacements within NPWS land are good representative examples of nineteenth century fortifications quarried into the natural sandstone. The Hornby Battery contains evidence of four different phases of artillery technology in one fortification site. It is a good example of a quarried battery with extensive connecting passageways and underground magazines and stores. The addition of the underground Engine Room in the 1890s and remnants of the associated electrical and communication installations make the battery of particular technological importance. Evidence of the changes to the battery to take larger ordinance in the 1890s is also of technological importance. There are also remnants of fine carpentry work within the Hornby Battery.

The remains of the Submariner’s Firing Station, Searchlight Emplacements, Observation Post and associated infrastructure throughout South Head are important as part of the first Submarine Mining installation in Australia (1878–1903). Other evidence of this installation remains at Chowder Bay, Georges Heights, Middle Head and Inner South Head (Lady Bay Precinct).

Conclusion Criterion (c) – Aesthetic / Technical

The overall aesthetic cultural landscape values of the SHNP at South Head are important at a State level because of the contribution they make to Sydney Harbour – an aesthetic icon for the State and the Nation.

The SHNP at South Head meets Criterion (c) at a State level because of its ability to demonstrate significant technical innovations used in defence installation in NSW history.

The aesthetic values of individual precincts within South Head are important at a local level.

There are tensions in the aesthetic and technical qualities at South Head as some of the native and weed species obscure historical views into and out of the site and between

significant precincts and historical elements. Weed species are also detrimental to the natural heritage values. For example the Coral Trees within the Camp Cove Precinct prevent views from Green Point and Camp Cove Beach to the gun emplacement and rifle walls behind (See Figures 2.17 and 3.33).

5.2.4 Criterion (d)

An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons;

A formal social values assessment was not possible within the scope of this Conservation Management Plan however the following special associations are considered likely:

- Green Point may have symbolic social value to both the Aboriginal and non-Aboriginal communities in NSW and Australia because it contains a monument to the first landing of the First Fleet in Sydney Harbour in 1788.
- The Sydney Aboriginal community values the Aboriginal sites at South Head for their historical, aesthetic, educational and spiritual significance¹⁷¹;
- Lady Bay Beach is one of the first nude bathing beaches to be established in NSW in 1976 and the beach continues to be valued as a haven by Sydney's nude bathing population;
- SHNP at South Head is likely to be valued by Defence personnel who have been stationed there, their families and decedents;
- SHNP at South Head is likely to be valued by maritime and Defence historians;
- SHNP at South Head is likely to be valued by professional and amateur ecologists in the Sydney region for its natural heritage values; and
- Visitors and local residents are likely to value the natural, recreational, cultural landscape and aesthetic values within the SHNP at South Head including the significant natural values and views and vistas identified in Section 4 of this report.

Conclusion Criterion (d) – Social / Spiritual

A formal social values assessment should be carried out for the SHNP at South Head as part of Stage 2 of this CMP.

¹⁷¹ Comber Consultants Pty Ltd, Aboriginal Archaeological Cultural Heritage Assessment South Head, Sydney Harbour National Park, 2007.

5.2.5 Criterion (e)

An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history;

The SHNP at South Head has natural heritage values which have potential to contribute to an understanding of NSW's natural history including providing habitat for three endangered species (see criteria (f) and (g) below).

South Head provides an important educational tool in demonstrating Aboriginal history and culture.¹⁷²

There is potential for further research and interpretation on the many uses of South Head that will enrich the cultural landscape experience including the stories of the Water Police, Lightkeepers and Defence personnel who have lived and worked at the site and their families.

The historical archaeological potential of the study area is generally high. The significance of individual elements will vary according to their associations and condition. The historical archaeological resources of South Head can contribute to our understanding of the way the area developed and was used, particularly by the Military. Smaller archaeological elements such as bases for DRFs, antennae, viewing platforms, winches, services, bridges, paths and other fixings for equipment provide the detail for how the larger, more impressive structural elements worked. These smaller features spread throughout the headland connect the current precincts together into a single integrated landscape and increase our ability to understand its historic development and use.

In particular the WWII and post WWII phases of Defence use of South Head have great potential for further historical and archaeological research.

Conclusion Criterion (e) – Research / Education

The SHNP at South Head is considered to have significance at a State level under Criterion (e) because of the suite of defence heritage archaeological features and likely additional unexplored archaeological resources which will contribute to an understanding of NSW's and Australia's defence history. These elements are additionally important (possibly at a

¹⁷² Comber Consultants Pty Ltd, Aboriginal Archaeological Cultural Heritage Assessment South Head, Sydney Harbour National Park, 2007.

National level) when considered in combination with the other important defence heritage sites that are found in Sydney Harbour National Park (including Middle Head, Georges Head, Georges Heights and North Head).

The historical archaeological potential of the study area is generally high. The significance of individual elements varies according to their associations and condition. Generally however, the historical archaeological resources of South Head can contribute to our understanding of the way the area developed and was used, particularly by the Military. Smaller archaeological elements such as bases for DRFs, antennae, viewing platforms, winches, services, bridges, paths and other fixings for equipment provide the detail for how the larger, more impressive structural elements worked. These smaller features spread throughout the headland connect the current precincts together into a single integrated landscape and increase our ability to understand its historic development and use.

An archaeological zoning plan has not been included as the whole of SHNP at South Head is considered to have archaeological potential. Recommendations on management of the archaeological resource will be considered in Stage 2 of this CMP. However a recommendation of this report is for a more detailed assessment of the historical archaeological potential of SHNP at South Head particularly in relation to the Hornby Lightstation and the defence heritage elements of Hornby Battery, Lady Bay and Gap Bluff.

The SHNP at South Head has significance at a local level under Criterion (e) for its potential to contribute to an understanding of NSW's natural history and to cultural history in relation to Aboriginal and maritime heritage and to the historical themes of navigation and leisure.

5.2.6 Criterion (f)

An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history;

Natural Heritage

South Head provides foraging habitat for three threatened species, the Grey-headed Flying Fox, the Powerful Owl and the Sooty Oystercatcher, all of which utilise South Head as part of a much greater foraging area.

The remnant and planted bushland at Gap Bluff is of significance as it provides habitat for the rare flora species *Acacia terminalis* subsp. *Terminalis*, and for the threatened fauna species outlined above.

Cultural Heritage

The Hornby Lightstation, comprising the Hornby Light (1858), Head Lightkeeper's Cottage (1860 & 1878), Assistant Lightkeepers' Cottages (1858 & 1878) and surrounding cultural and archaeological landscape, is considered to be of outstanding significance to the State of NSW. Hornby is the only NSW Lightstation to retain the whole navigational site collection of light and adjacent cottages intact to the late nineteenth century arrangement. This significance is only slightly impaired by the loss of above ground garden details (eg original cottage and lightstation boundary fencing and ancillary structures); and by sections of late twentieth century native landscape replacing the more open nineteenth century lightstation character.

The Hornby Lightstation Head Lightkeeper's Cottage is a remarkably intact example, both externally and internally of a 1860s Victorian Georgian cottage with seamless 1878 additions. Significant interior detailing includes remnant plaster ceilings, more intact, boarded ceilings, internal joinery with hardware, slate fireplace surrounds and cast iron coal grates. The nineteenth century character of the cottage has withstood the detrimental twentieth century upgrading that has been applied to many similar residences of this period.

The remains of the Submariner's Firing Station, Searchlight Emplacements, Observation Post and associated infrastructure throughout South Head - part of the first Submarine Mining installation in Australia (1878–1903) which also includes evidence at Chowder Bay, Georges Heights, Middle Head - is likely to be rare in NSW and possibly Australia.

Conclusion Criterion (f) - Rarity

The SHNP at South Head is considered to have significance at a State level under Criterion (f) because it contains uncommon, rare or endangered aspects of NSW's cultural or natural history as outlined above.

5.2.7 Criterion (g)

An item is important in demonstrating the principal characteristics of a class of NSW's - cultural or natural places; or - cultural or natural environments.

Natural Heritage

The remnant bushland areas of South Head are of low quality but provide important habitat for native fauna. The vegetation types are well represented elsewhere within the Sydney Basin.

South Head provides habitat for a number of common mammals, reptiles and an amphibian typical of disturbed park landscapes within the Sydney Basin. It also provides habitat for a number of migratory and itinerant bird species and several species whose greater range includes South Head.

Cultural Heritage

The Aboriginal sites at South Head demonstrate continuing and tangible cultural links to the lifestyle and values of the Aboriginal community at the time of European colonisation and in the early days of the settlement prior to Aboriginal people being alienated from the land.¹⁷³

South Head (including the Harbour foreshore to Camp Cove Beach, Gap Bluff and Green Point) demonstrates the principal characteristics of elevated Sydney Harbour foreshore land that has been reserved from private development and utilised for key navigational and defence purposes since 1788.

Conclusion Criterion (g) - Representativeness

South Head is considered to have significance at a State level under Criterion (g) as part of the Sydney Harbour National Park which demonstrates the principal characteristics of geographically strategic harbour foreshore land which has historically been set aside from private development and used for significant navigational and defence purposes and which today retains important natural, aesthetic and social values.

¹⁷³ Comber Consultants Pty Ltd, Aboriginal Archaeological Cultural Heritage Assessment South Head, Sydney Harbour National Park, 2007.

The SHNP at South Head is considered to have significance at a local level under Criterion (g) because it demonstrates the principal characteristics of a cultural or natural environment of importance to the local Aboriginal communities.

Because of its previous Government uses the National Park land at South Head and elsewhere within Sydney Harbour National Park is today important at a local level for its ability demonstrate the geomorphology of Sydney Harbour and to support native flora and fauna, in addition to its rich cultural heritage and aesthetic landscape values.

5.3 Summary of Overall Heritage Levels by Precinct

This summary includes a comparison of heritage levels under the NSW Heritage Act assessment criteria for each of the precincts within the SHNP at South Head. This information is partly taken from the assessments in Volume 2 of this report.

| Precinct in SHNP at South Head | 1. Inner South Head | 2. Lady Bay | 3. Camp Cove | 4. Gap Bluff | 5. Green Point | SHNP at South Head Overall |
|---|---------------------|-------------|--------------|--------------|----------------|----------------------------|
| Criteria (a) Historical | STATE | LOCAL | LOCAL | STATE | NATIONAL | NATIONAL |
| Criteria (b) Associations | STATE | LOCAL | STATE | LOCAL | STATE | STATE |
| Criteria (c) Aesthetic / Technical | STATE | LOCAL | LOCAL | LOCAL | LOCAL | STATE |
| Criteria (d) Social / Spiritual ¹⁷⁴ | STATE | LOCAL | LOCAL | LOCAL | STATE | STATE |
| Criteria (e) Research / Education ¹⁷⁵ | STATE | STATE | LOCAL | LOCAL | STATE | STATE |
| Criteria (f) Rarity | STATE | LOCAL | LOCAL | STATE | STATE | STATE |
| Criteria (g) Representativeness | STATE | LOCAL | LOCAL | LOCAL | LOCAL | STATE |

¹⁷⁴ Yet to be confirmed by a more formal social values assessment including community and stakeholder consultation.

¹⁷⁵ Relates to both the Aboriginal and non-Aboriginal research potential of the place. Historical archaeological values need further assessment but likely to be of State significance as part of a suite of former Defence sites in SHNP with combined high archaeological research values.

5.4 Summary Assessment of Heritage Significance by Inventory Item

| Inventory Item | Grading |
|----------------|--|
| 1.0 | Inner South Head Precinct |
| 1A.1 | Hornby Head Lightkeeper's Cottage |
| 1A.2 | Hornby Assistant Lightkeepers' Cottages |
| 1.3 | Hornby Battery, gun emplacements, passages, magazines and Directional Range Finder |
| 1.3A | Hornby Battery Shell Store & Collection |
| 1.3B | Hornby Battery Engine Room & Collection |
| 1.4 | 1854/5 gun emplacement |
| 1.5 | World War II Searchlight Shelter, 1931–1941 |
| | |
| 2.0 | Lady Bay Precinct |
| 2.0 | Lady Bay Precinct |
| 2.2 | Searchlight No. 3, 1891 |
| | |
| 3 | Camp Cove Precinct |
| 3.1 | Constables Cottage (32 Cliff St) |
| 3.4 | Cobblestone Road |
| 3.3 | Camp Cove gun emplacement and rifle walls |
| 3.5 | Camp Cove Slipway |
| 3.2 | 33 Cliff Street |
| | |
| 4.0 | Gap Bluff Precinct |
| 4.0 | Gap Bluff Precinct |
| 4A.1 | Officers' Mess & Garden |
| 4A.2 | Armoury |
| 4A.3 | Cottage/former Workshop |
| 4A.4 | Site of the former 1912 barracks |
| 4B.1 | National Park Lookouts |
| | |
| 5.0 | Green Point Precinct |
| 5.3 | 1850s navigation obelisk |
| 5.4 | Submarine Miner Firing Station |
| 5.5 | Searchlight No 4 / Boom Net Winch House |
| 5.1 | Green Point Cottage (33 Pacific St) |
| 5.2 | Arthur Phillip monument |

5.5 Statement of Significance

South Head is considered to be of National heritage significance as one of the suite of strategic harbour lands within SHNP, important in the pattern of Australia's maritime and defence history including National Park land at Middle Head, Georges Head, Georges Heights and North Head. The remains of the Submariner's Firing Station, Searchlight Emplacements, Observation Post and associated infrastructure throughout South Head are important at a National level as part of the first Submarine Mining installation in Australia (1878–1903). Other evidence of this installation remains at Chowder Bay, Georges Heights, Middle Head and Inner South Head (Lady Bay Precinct).

The NPWS land at Green Point has cultural significance to both Aboriginal and non-Aboriginal Australians for its symbolic connection with the first landfall of Governor Arthur Phillip in 1788.

The Aboriginal sites at South Head are significant at a State level because they provide a tangible link to the Aboriginal occupation of the land including evidence of pre-contact subsistence and religious activities.¹⁷⁶ South Head is of State significance historically as a place of strategic importance for navigation as demonstrated within SHNP at South Head by the second Water Police station site at Camp Cove from 1840, the Green Point Navigation Obelisk from 1858, and the Hornby Lightstation from 1858.

The wrecking of the *Dunbar* in 1857 with the loss of 122 lives was a key historical event associated with these later navigational improvements. The Hornby Lightstation built in response to this tragedy and comprising the Hornby Light (1858), Head Lightkeeper's Cottage (1860 & 1878), Assistant Lightkeepers' Cottages (1858 & 1878) and surrounding cultural and archaeological landscape, is considered to be of outstanding significance to the State of NSW. Hornby is the only NSW Lightstation to retain the whole navigational site collection of light and adjacent cottages intact to the late nineteenth century arrangement. The Lightstation has associations with its principal designers, the NSW Government Architects Alexander Dawson (GA 1856-1862) and James Barnet (GA 1862-1890); Barnet was also responsible for many of the fortifications structures at South Head in the late nineteenth century.

¹⁷⁶ Comber Consultants Pty Ltd, Aboriginal Archaeological Cultural Heritage Assessment South Head, Sydney Harbour National Park, 2007.

The Camp Cove Water Police archaeological remnants and Green Point Navigation Obelisk also have technical heritage significance as part of developments in NSW maritime safety.

The former defence installations throughout South Head are of State heritage significance for their historical, associational, aesthetic, technical significance and research potential. The nineteenth century emplacements demonstrate Australia's reaction to events in Europe. The South Head Defence installations are associated with Barnet, along with Sir William Jervois (1821–1897) and Sir P. H. Scratchley (1835–1885). The remains of the Submariner's Firing Station, Searchlight Emplacements, Observation Post and associated infrastructure throughout South Head - part of the first Submarine Mining installation in Australia (1878–1903) which also includes evidence at Chowder Bay, Georges Heights, Middle Head - is likely to be rare in NSW and possibly Australia. The WWII and post WWII phases of Defence use of South Head also have great potential for further historical, technical and archaeological research.

The 1870s Hornby Battery (partly within HMAS Watson land) and other gun emplacements within NPWS land are good representative examples of nineteenth century fortifications quarried into the natural sandstone. The Hornby Battery contains evidence of four different phases of artillery technology in one fortification site. It is a good example of a quarried battery with extensive connecting passageways and underground magazines and stores. The addition of the underground Engine Room in the 1890s and remnants of the associated electrical and communication installations make the battery of particular technological importance. Evidence of the changes to the battery to take larger ordinance in the 1890s is also of technological importance.

The aesthetic values of South Head include the important views and vistas to and from the headland, and also between key precincts on the headland. The prominent and strategic location of South Head was the impetus for its navigational and defence uses, and the views and vistas are essential to the heritage interpretation of the place, despite some key views being currently overgrown.

South Head also has significance at a local level for its ability to demonstrate the geomorphology of Sydney Harbour and to support native flora and fauna, including some endangered species. It also has significance at a local level for its historical, associational, aesthetic and representative values.

Visitors and residents value the local recreational and cultural landscape of South Head including the important views and vistas. A formal social values assessment was not possible within the scope of this Conservation Management Plan however Section 5.2.4 considers the likely special communities who would value South Head including the Sydney Aboriginal community, professional and amateur natural and cultural historians, nude bathers, defence personnel and their families and descendants.

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